2023

Exploring the Perceptions of Recent High School Graduates Regarding Pk-12 School Safety Measures Considering Increased Occurrences of Mass School Shootings: A Q Method Study

Marie Farjian
n00972717@unf.edu

Follow this and additional works at: https://digitalcommons.unf.edu/etd

Part of the Educational Leadership Commons, Humane Education Commons, and the Student Counseling and Personnel Services Commons

Suggested Citation
https://digitalcommons.unf.edu/etd/1203

This Doctoral Dissertation is brought to you for free and open access by the Student Scholarship at UNF Digital Commons. It has been accepted for inclusion in UNF Graduate Theses and Dissertations by an authorized administrator of UNF Digital Commons. For more information, please contact Digital Projects.
© 2023 All Rights Reserved
Exploring the Perceptions of Recent High School Graduates Regarding Pk-12 School Safety Measures Considering Increased Occurrences of Mass School Shootings: A Q Method Study

by

Marie Ann Farjian

A dissertation submitted to the Department of Leadership,
School Counseling & Sport Management
in partial fulfillment of the requirements for the degree of
Doctor of Education
UNIVERSITY OF NORTH FLORIDA
COLLEGE OF EDUCATION AND HUMAN SERVICES
August 2023
Unpublished work © Marie A. Farjian
This dissertation titled: Exploring the Perceptions of Recent High School Graduates Regarding Pk-12 School Safety Measures Considering Increased Occurrences of Mass School Shootings: A Q Method Study

Dr. Sophie Filibert, Committee Chair

Dr. Christopher Janson, Committee Member 1

Dr. Paul Parkison, Committee Member 2

Dr. Angela Mann, Committee Member 3
DEDICATION

This dissertation is dedicated to my daughter, Annabelle. It breaks my heart that you’ve been brought into a world where school is a scary place. I hope one day active shooter drills will be a thing of the past and you won’t know exactly how many ceiling tiles there are in your classroom’s supply closet. I pray that the only thing you’ll have to worry about in class is being kind and learning the way kids should be - through play, love, and exploration. You are my forever reason. Dr. Mommy will always fight for you. I can’t wait to spend more time playing with you! *three squeezes*
ACKNOWLEDGMENTS

The completion of this dissertation has been a long time coming – nine years to be exact. Throughout these years I have encountered many people who have supported me (and even dragged me) on my journey. First and foremost, I’d like to recognize my incredible committee members, Drs. Filibert, Janson, Parkison, and Mann. One of the many things that I have learned during my time at the University of North Florida is that good leaders only challenge you as much as they can support you. To say the least, you all have never fallen short. Without your honest feedback and support none of this would have come to fruition. Thank you for hanging in there with me and pushing me to completion. You guys knew I could do this, even when I didn’t believe I could. I will forever be grateful for your guidance.

When I started on my Doctoral path, I had no idea just how many curveballs life would throw me, but the one thing that stood strong and steady was the love and support I received during this time from my family and friends. I’d like to acknowledge my mom and my mother-in-law, my siblings (in laws included), my husband, my aunts and sister-cousins, and my sisters from another mister, for dealing with all my craziness. Thank you for answering my 2:00 AM calls and listening to me cry. Thank you for watching Annabelle for me, and taking care of us, and making us food, and reading my work. You guys are the real MVPs. “Thank you” simply isn’t enough to express how deeply I am indebted to you. Without your encouragement and help with Annabelle, I would have never been able to finish. Now that I’m finally done, maybe life will for back to normal!

Finally, I’d like to thank my geriatric pup, Roofus, for pulling countless all-nighters with me. You, sir, are the best sounding board to my crazy antics. When you cross the rainbow bridge, make sure you tell my dad that I finally finished!
TABLE OF CONTENTS

Dedication ............................................................................................................................... iii
Acknowledgments .................................................................................................................. iv
Abstract ................................................................................................................................. x

CHAPTER 1: INTRODUCTION ................................................................................................. 11
    Youth and School Violence ............................................................................................... 11
    Defining Mass School Shootings .................................................................................... 14
    Mass School Shootings as an Epidemic .......................................................................... 18
    Frequency of Mass School Shootings ............................................................................. 20
    Media and Mass School Shootings .................................................................................. 30
    Media and Moral Panic ..................................................................................................... 31
    Summary ............................................................................................................................ 32

CHAPTER 2: LITERATURE REVIEW ....................................................................................... 34
    The Impact of School Practices and Policy Responses on School Climate ..................... 35
        School Climate ............................................................................................................... 35
        School Climates Rooted in Authoritarian Practices .................................................... 40
    The Security Theater: School Hardening and Student Perceptions on School Safety .......... 41
        Perceived Safety and Student Perceptions on School Safety .......................................... 43
    Politics and Policies .......................................................................................................... 49
        Zero Tolerance .............................................................................................................. 50
        Gun laws ..................................................................................................................... 51
    Conceptual Framework: Focusing Events and Public Policy Making ........................... 52
        Focusing Events .......................................................................................................... 53
    Public Policy Responses to Moral Panic as it relates to School Practices in Florida .......... 53
        The Student Voice and Informing Meaningful Public Policies in Florida ...................... 56
    Summary ............................................................................................................................ 59

CHAPTER 3: METHODOLOGY ................................................................................................. 64
    Introduction ....................................................................................................................... 64
    Defining Key Concepts in Q-Methodology ....................................................................... 65
    Methodology ..................................................................................................................... 66
    Implementation of Q-methodology ................................................................................... 66
CHAPTER 5: DISCUSSION

Discussion ........................................................................................................... 107
Perceived safety: ................................................................................................. 108
Variations in student perceptions of school safety............................................. 110
Conceptual Framework: Focusing Events and Public Policy Making................ 112

Implications ......................................................................................................... 115
Practice ............................................................................................................... 116
Policy ................................................................................................................. 116
Limitations .......................................................................................................... 123
Recommendations for Research ........................................................................ 125
LIST OF TABLES

Table 1-1. Types of non-active shooter events ................................................................. 24
Table 1-2. A Chronological List of Intentional School Shootings that Occurred in K12 Schools with Two or More Victims in the United States Between the Years of 1764 and 2018 ...........26
Table 2-1. The Life Cycle of Public Policy ................................................................. 52
Table 3. Example of How Concourse Statements Became Q-set Statements .................. 72
Table 3-2. Example of a Forced Choice Frequency Distribution Table Used in Q-Methodology .................................................................................................................. 74
Table 4-1. P-Set Agreement to Safety Measures in My High School Were Reasonable and Effective Statement .................................................................................................................. 77
Table 4-2. P-Set Agreement to School Violence is a Significant Threat to Students Today Statement .......................................................................................................................... 77
Table 4-3. Factor Correlation Between Factor Scores for Current Study ...................... 79
Table 4-4. Scree Plot and Factor Rotations Using Eigenvalues .................................. 80
Table 4-5. Eigenvalues, Percent of Explained Variance and Cumulative Percentages of Explained Variances for Factors 1-5 ................................................................. 80
Table 4-6. Factor Characteristics .................................................................................... 81
Table 4-7. Significant Participant Loads Broken Down by Factors ............................ 82
Table 4-8. Q Sample Statements and Factor Array Rankings ..................................... 82
Table 5-1. Q Study Results: Factor Profiles ............................................................... 106
Table 5-2. The Life Cycle of Public Policy Relating to School Safety Measures in the State of Florida .................................................................................................................. 114
Table A1. Definitions of Important Terms Used Within Q ......................................... 152
Table A2. Incidents of Active Shooter Events in K-12 Schools from 1970 to 2021 .......... 153
Table A3. Unrotated Factor Matrix ................................................................................. 173
LIST OF FIGURES

Figure 1. School Related Shootings in K-12 Schools Since 1970…………………………… 23
Abstract

School violence and mass school shootings are increasing at an alarming rate in our nation (Arnold, 2015; Ash & Sanders, 2018; Baird, Roellke, & Zeifman, 2017; Beland & Kim, 2016; De Apodaca, Brighton, Perkins, Jackson, & Steege, 2012; Duplechain & Morris, 2016; Elliott, 2015; Gerard, Whitefield, Porther, & Browne, 2016; Haan & Mays, 2013; Jonson, 2017). Institutions of learning that were once deemed safe and sacred have turned into metaphorical and literal battlegrounds (Jonson, 2017). As a result of the increased risk of mass school shootings, many states have implemented laws to assist in implementing more rigid safety measures within the school setting, this is often referred to as school hardening. There has been research conducted regarding the effectiveness of these school hardening campaigns and it seems that these school hardening campaigns are counter intuitive to what their purpose serves (Cuellar et al., 2018; Lamoreaux & Sulkowski, 2019; Mann & Brock, 2020).

This dissertation is a Q methodological study that aims to explore the perspectives of recent high school graduates on the effect that school hardening campaigns had on their K-12 experiences. These perceptions were collected from 61 participants that sorted a Q Sort with 37 items in the Q Set. Data analysis was conducted and themes from the analysis were fashioned and dissected. From these factor profiles, recommendations for future research and implementation strategies were suggested.
CHAPTER 1: INTRODUCTION

Youth and School Violence

Current youth in US schools are exposed to more forms of violence than students of previous generations (Kim, Sanders, Makubuta, & Yu, 2020; Kodelja, 2019; Lester, Lawrence, & Ward, 2017; Polanin, Espelage, Grotpeter, Spinney, Ingram, Valido, El Sheikh, Torgal, & Robinson, 2021; Siller, Edwards, & Banyard, 2021; Wang et al., 2019; Wren, 1995). Leading researchers and organizations that monitor youth violence define such occurrences similarly and agree on its increasing pervasiveness in American society (Center for Disease Control [CDC], 2020a; Indicators of School Crime and Safety [ISCS], 2019; Lester et al., 2017; Youth Risk Behavior Survey [YRBS], 2019). The CDC defines youth violence as, “the intentional use of physical force or power to threaten or harm others by young people ages 10-24,” (2020a). The CDC explains that “it typically involves young people hurting peers who are unrelated to them and who they may or may not know well…[and] can include fighting, bullying, threats with weapons, and gang-related violence” (2020a, para. 1). Youth can be involved in such violence in three major ways: victim, offender, and witness. Youth violence is widespread and the cause of many injuries and death of youth in the United States. The CDC estimates that:

- one in five high school students reported being bullied on school property in the last year with about one in seven being bullied through electronic or social media related means (e.g. texting, Instagram, Facebook, or other online platforms),
- homicide is the third leading cause of death for youth ages 10-24,
- each day, about 13 young people are victims of homicide and about 1,100 are treated in emergency departments for nonfatal assault-related injuries, and
• Youth homicides and nonfatal physical assault-related injuries result in more than $20 billion annually in combined medical and lost productivity costs alone, not including costs associated with the criminal justice system, psychological and social consequences for victims, perpetrators and their families, or costs incurred by communities. (para. 2)

Youth violence often finds its way into institutions that youth are more likely to frequent such as schools. School violence is broadly defined as when such offenses occur within the confines or contexts of a school such as if incidences happen while youth commute to and from school or during school-sponsored events (CDC, 2020b; Lester et al., 2017). Although school contexts may vary, school violence includes “bullying and cyberbullying, fighting (e.g., punching slapping, kicking), weapon use, gang violence, and sexual violence” (CDC, 2020b, para 2). School violence may also be viewed as “any violence between students, corporal punishment of students by teachers, …violence directed at students by teachers such as verbal aggression or rape and violence directed by students at teachers. Furthermore, school violence is specifically defined as violence occurring on school premises, while traveling to or from school, or during a school-sponsored event” (Lester et al., 2017, p. 188). Polanin et al. (2021) clarifies that the term ‘school violence’ categorically includes “specific behaviors such as verbal and physical aggression, peer victimization, bullying, physical aggression, bullying, peer victimization, and general threats” (p. 115). Consequently, school violence may “disrupt learning and have a negative effect on students, schools, and the broader community” (CDC, 2020b).

The most recent publication of the Youth Risk Behavior Survey (YRBS) 2019 found that within the contexts of American high schools:
• about 1 in 5 high school students reported being bullied on school property, and more than 1 in 12 high school students reported being cyberbullied in the last year,
• 8% of high school students had been in a physical fight on school property one or more times during the 12 months before the survey,
• more than 7% of high school students had been threatened or injured with a weapon (for example, a gun, knife, or club) on school property one or more times during the 12 months before the survey, and
• about 9% of high school students had not gone to school at least 1 day during the 30 days before the survey because they felt they would be unsafe at school or on their way to or from school. (CDC, 2020b, para. 2)

Further, according to the most recent publication of *Indicators of School Crime and Safety: 2019* (ISCS):

• in 2013, rates of violent victimization were 22% higher in schools than they were outside of schools in the United States,
• 42 school- associated violent deaths occurred between July 1, 2016 and June 30, 2017,
• During the 2017–18 school year,
  - 35 percent of public schools (28,700 schools) took at least one serious disciplinary action for specific offenses
  - 80 percent of public schools recorded that one or more incidents of violence, theft, or other crimes had taken place, amounting to 1.4 million incidents; during the same year, 47 percent of schools reported one or more incidents to the police, amounting to 422,800 incidents
in school year 2018–19, there were 66 reported school shootings with casualties at public and private elementary and secondary schools, including 29 school shootings with deaths and 37 school shootings with injuries only, and

in 2018, among students ages 12–18, there were about 836,100 total victimizations (theft and nonfatal violent victimization) at school and 410,200 victimizations away from school. (Wang et al., 2019, p.iii-vi)

Wren (1995) noted that “twenty-two percent of public-school students are afraid of being attacked at school and six percent indicate that they avoid some place in or around their school because they think someone might attack or harm them there” (p. 311). The 2019 School-Associated Violent Death Study (CDC, 2019) found, “multiple-victim school-associated youth homicide incidence rates increased significantly from July 2009 to June 2018” (para. 3). One example of multiple-victim school-associated youth homicides that seems to be weighing heavily on our society are Mass school shooting.

**Defining Mass School Shootings.** Often, when a mass school shooting takes place, it spurs a seemingly never-ending cycle of media coverage and research efforts. While exploring the scholarly research and media coverage on this topic, like defining school violence, it emerged that there are many phrases and definitions of what a mass school shooting is and what factors, such as the number of victims, must be present in order to label one of these offenses as an official school shooting (Gerard et al., 2016; Haan & Mays, 2013; Langman 2015). There are many terms and phrases for incidents of violence within the school setting that are often used to describe mass school shootings. For example, the Center for Disease Control and Prevention (CDC) (2016) conducted a study in which they defined a school associated violent death as, “a fatal injury (e.g., homicide, suicide, or legal intervention) that occurs on school property, on the
way to/from school, or during or on the way to/from a school-sponsored event…[occurring in] U.S. elementary and secondary schools, both public and private” (para. 2). Similarly, the ISCS (2012, 2017) reports, commissioned by the National Center for Education Statistic (NCES) and U.S. Department of Educations (USDOE), use a similar definition as the CDC, stating a school-associated violent death is,

a homicide, suicide, or legal intervention (involving a law enforcement officer), in which the fatal injury occurred on the campus of a functioning elementary or secondary school in the United States, while the victim was on the way to or from regular sessions at school or while the victim was attending or traveling to or from an official school-sponsored event. Victims of school-associated violent deaths included students, staff members, and others who are not students. (Robers, Kemp, & Truman, 2013, p.iii; Musu-Gillette, Zhang, Wang, Zhang, Kemp, Diliberti, & Oudekerk, 2018, p.iii)

This is starkly different than other definitions of mass school shootings that emerge in the literature for many reasons. First, The CDC (2016) and ISCS (2012, 2017) both refer to school shootings as acts of a school associated violent deaths and include suicides and any event that involves law enforcement. In contrast, some other sources, such as local media outlets, do not include these events in their definitions. Furthermore, both definitions do not assign a specific number of students that have to be harmed in order to be classified as an act of a school associated violent death, which was a major determining factor in defining an act of a school associated violent death for other sources. Finally, these definitions include venues that are not housed within the school setting/building.

As noted above, local and national news outlets also differ from the CDC and ISCS in how they define school shootings. For instance, Victor (2018) excludes school shooting incidents
where “guns were used on or near school property, including suicides or attempted shootings in which no one was injured” (para. 2). Furthermore, Ahmed and Walker (2018) use the following guidelines to define a school shooting incident:

- involved at least one person being shot (not including the shooter),
- occurred on school grounds,
- occurred at schools grades K through college/university level,
- included gang violence, fights and domestic violence, and
- included accidental discharge of a firearm as long as the first two parameters are met.

(Para. 2)

Overly generalized descriptors, such as *school-associated violent deaths, school violence,* and *school shootings,* can be problematic for many reasons. Such descriptors often encompass an array of violent and/or non-violent deaths within a school’s setting that can be associated with an array of causes ranging from suicide, gang retaliation, accidental gun discharges, to hazing and interpersonal disputes. Due to the motley nature of these events, data can be misinterpreted or skewed, resulting in inaccurate reporting. Such generalized descriptors may inflate or minimize the contextual factors that are common among most school shootings. Generalized terms do not place emphasis on the distinct characteristics and aspects surrounding and leading up to a mass school shooting, such as planning, the intent to harm as many individuals as possible, and a general disposition of malice towards individuals in a school setting - for known or unknown reasons (Gerard et al., 2017; Langman, 2017c).

Baird et al. (2017) explained the difference between broader terms used to describe school shootings, like *school violence,* and an act of *mass school violence.* They state,
school violence…[is] rooted in interpersonal disputes and usually only involve a small number of students…On the other hand, mass school violence is more frequently characterized by…the intention of harming a large number of individuals who hold symbolic value, and/or are usually more socially distant from the shooter. (p. 262)

Similarly, Haan and Mays (2013) utilized the term *rampage shootings* to differentiate between broader terms used to define school violence and the type of school violence and shootings that are characterized by “students shooting to exact revenge against the school or members of that school for what they see as wrongs that have been committed against them” (p. 50). Follman, Aronsen, and Pan (2018a) utilized the Federal Bureau of Investigations’ (FBI) definition for a mass school shooting to guide their research. The FBI considers any type of shooting a mass shooting if, “four or more victims were killed,” (para. 2) during “a single attack in a public place” (para. 2).

Considering the contexts explored when attempting to define school shootings for the purposes of this study and using similar qualities as Newman and Fox (2009), this study will use the term *Mass School Shooting*, to define any event of school violence where:

- the location of the incident is a “public stage” either on the school property or at a school-related function [in a K-12 setting],

- the shooters must be current or former students of the school [or have some connection to the school at which the shooting occurred],

- there must be multiple victims (although the injuries do not have to be fatal) or, at the very least, multiple targets, and
although some victims may be targeted specifically because they have wronged the shooter, there are typically others who are chosen only for their symbolic significance (the principal, the preps, the prayer circle, the jocks) or are shot at random. (p. 1287-8)

**Mass School Shootings as an Epidemic.**

Given that no other country comes close to experiencing the frequency and fatalities of school shootings as the US, media outlets portray mass school shootings as an epidemic plaguing the United States of America (Barbieri & Connell, 2015; Larkin, 2009). The prevalence of mass school shootings, as a uniquely American crisis, is increasingly being described as a health epidemic given school shootings’ similarities in progression, impact, and outcomes on communities (Butts, Roman, Bostwick, & Porter, 2015; CDC, 2011; Conick, 2016; World Health Organization [WHO]; Riemann, 2019; Shackle, 2018; Taylor, 2018). In fact, the CDC categorizes non-contagious health conditions and other related events as epidemic if they meet certain criteria. An epidemic is defined as when an agent and susceptible hosts are present in adequate numbers, and the agent can be effectively conveyed from a source to the susceptible hosts (CDC, 2012). More specifically, an epidemic may result from:

- A recent increase in amount or virulence of the agent,
- The recent introduction of the agent into a setting where it has not been before,
- An enhanced mode of transmission so that more susceptible persons are exposed,
- A change in the susceptibility of the host response to the agent, and/or
- Factors that increase host exposure or involve introduction through new portals of entry. (para. 4)
Although, the CDC’s (2012) definition of an epidemic event “presumes only infectious agents” are factors that contribute to epidemics, they also state “non-infectious diseases exist in epidemic proportion in the U.S.” (para. 5).

In recent decades, researchers and public health officials have begun to classify violence as a public health epidemic (Butts et al., 2015; Conick, 2016; Kramer, 2020; Riemann, 2019; Shackle, 2018; Taylor, 2018). In 2000, former WHO epidemiologist, Dr. Gary Slutkin, began his work in reducing violence on the streets of Chicago. This program came to be called the Cure Violence project. The fundamental basis of this movement is to intervene before the violence happens. It focuses on the prevention of violence rather than the reaction to it. Slutkin (2017) maintains that the outbreak and spread of violence is the same outbreak patterns as contagions in third world countries. While studying the maps and clusters outbreaks of violence that were popping up in Chicago, he noticed that the trends mimicked the same spread as contagious diseases (Butts et al., 2015; Conick, 2016; Riemann, 2019; Shackle, 2018; Taylor, 2018). He states, “I didn’t make it [violence] a disease and I didn’t make it contagious. We just connected the dots, then demonstrated that if you treat it [violence] that way, guess what? It bends. It responds a lot” (Conick, 20016, p.19). He explains,

In my presentations, I often show several graphs side by side. One shows a cholera outbreak in Somalia . . . [b]eside it, another graph shows a curve of a better-known tragedy – the 1994 mass killings in Rwanda, which claimed nearly 800,000 lives. A third graph shows killings in US cities, which appear like outbreaks of tuberculosis in Europe centuries ago. Side by side, they demonstrate how violence behaves like outbreaks of disease. (Riemann, 2018, p.147)
He believes by using the public health approach to cure disease on violence, you can significantly lower the amount of violence that takes place (Butts et al., 2015; Conick, 2016; Riemann, 2019; Shackle, 2018; Taylor, 2018).

The Cure Violence model doesn’t “involve the use of force or the threat of punishment. It presumes that violent behavior—like all behavior—responds to structures, incentives, and norms. It is designed to introduce at-risk individuals to alternative models of conflict resolution that, in turn, may spread to the larger community—essentially ‘denormalizing’ the harmful behavior” (Riemann, 2018, p.147). The process of implementing the public health model to elevate violence in Chicago had three major facets. First the areas of violence needed to be identified. Then the pattern of violence needs to be interrupted. The final phase of the Cure Violence process comes in education and changing group and societal norms around violence (Butts et al., 2015; Conick, 2016; Riemann, 2019; Shackle, 2018; Taylor, 2018). The Cure Violence model has been proven to significantly reduce violence in over 20 major US cities (Butts et al., 2015; Conick, 2016; Patton, McGregor, & Slutkin, 2018; Riemann, 2019; Shackle, 2018; Taylor, 2018) and many countries around the world like Scotland (Shackle, 2018) and Honduras (Ransford, Decker, Cruz, Sánchez, & Slutkin 2017). Thus, the relative increase and outcomes of school shootings may warrant the consideration of policymakers to classify mass school shootings as an epidemic event and treat it as such, a public health crisis.

**Frequency of Mass School Shootings.** Research has found that manifestations of mass school shootings have drastically been on the rise in all parts of the country (Arnold, 2015; Ash & Sanders, 2018; Baird et al., 2017; Beland & Kim, 2016; Bump, 2018; De Apodaca et al., 2012; Duplechain & Morris, 2016; Elliott, 2015; Gerard et al., 2016; Haan & Mays, 2013; Jonson, 2017), but because school shootings are still fairly uncommon in terms of their occurrences, it is
still difficult to speculate why they happen and how effective are prevention measures (Barbieri & Connell, 2015; Elsass, Schildkraut, & Stafford, 2016; Ferguson et al., 2011; Gius, 2008; Hudson, Eindom, & Hooper, 2005). In contrast to these statements, a report commissioned by the Department of Homeland Security (2019) found the motives for the causes of mass school shootings were widespread, but the most common motivation for carrying out a mass school shooting involved grievances with classmates or school staff/faculty, that lead to a desire to kill and/or commit suicide, in addition to seeking fame/notoriety. They stressed that “discovering a student’s motive for engaging in concerning behavior is critical to assessing the student’s risk of engaging in violence and identifying appropriate interventions to change behavior and manage risk.” (p.4)

Astoundingly, the earliest recorded mass school shooting to date occurred in 1764 and resulted in the death of 11 people just outside of Greencastle, Pennsylvania (Brophy, 2016; Dorn et al., 2013; Duplechain & Morris, 2014). In the decades to follow, the number of reported school shooting would increase. Duplechain and Morris (2014) collected data from newspaper reports across the nation and found, between the years 1760 – 1900 only 25 mass school shootings occurred during a 140 year period. As time went on, the number of school shootings that were reported slightly increased. For instance, between 1900 and 1930, 39 school shootings were reported in the media, and during the next 36-year stretch, local newspapers reported 45 school shootings. From 1960 to 1990, 53 different school shootings were reported. Duplechain and Morris (2014) found the number of school shootings that occurred from 1990 to 2014 drastically intensified to 190 shootings in just a 24-year period. Supporting these claims, Ash and Saunders (2018) reason,
prior to the late 1970s, incidents were described as ‘isolated.’ However, in the two decades between the 1979 shooting at Cleveland Elementary School and the one at Columbine High in Littleton, Colorado in 1999, nearly 60 rampage school shootings occurred, an average of three a year. (p.36)

Further they maintain, “more than 115 school shootings [have] occurred in the US in K-12 (ages 5–18) schools in the 17 years between Columbine and 2016” (p. 36). Even national news reports and media outlets have concluded similar points. For example, Bump (2018) wrote in a recent political analysis for *The Washington Post,*

The number of deaths and school shooting incidents through May 18 [of each year analyzed] are each higher this year than at any point since 2000. There have been three times as many deaths in school shootings so far this year [2018] than in the second-most deadly year through May 18, 2005. In fact, there were 36 fatalities in school shootings in total through May 18 of each year [analyzed] from 2000 to 2017 — only slightly more than there have been in 2018 alone. (para. 11-2)

Statistically speaking, this is a significant increase is mass school shooting (Arnold, 2015; Ash & Sanders, 2018; Baird, Roellke, & Zeifman, 2017; Beland & Kim, 2016; De Apodaca, Brighton, Perkins, Jackson, & Steege, 2012; Duplechain & Morris, 2016; Elliott, 2015; Gerard, Whitefield, Porther, & Browne, 2016; Haan & Mays, 2013; Jonson, 2017). Given this information, I am inclined to view school shootings as no longer focusing events but an epidemic.

A visual representation of the number of school related shootings that have occurred in k-12 school in the United States since 1970 to 2021 can be found in Figure 1. As noted in the graph, a significant uptick in school shootings have occurred in K-12 schools over the past five decades. Riedman & O’Neill (2021) differentiated the data by categorizing the shootings as
either an active shooter incident or a non-active shooter incident. Active shooter events are what we would consider a rampage school shooting. They explain an active shooter event is an incident, “when the shooter killed and/or wounded victims, either targeted or random, within the school campus during a continuous episode of violence” (para. 23). In contrast, non-active shooter events typically were targeted or accidental. A detailed list of types of non-active shooter events and be found in Table 1-1. Further, Table A2 in Appendix A, lists the specific incidents of active shooter events in k-12 schools from 1970 to 2021 that was compiled by Riedman and O’Neill (2021) to create Figure 1.

**Figure 1**

*School Related Shootings in K-12 Schools Since 1970*

![Graph showing school related shootings from 1970 to 2020](image)

*Note.* This graph was compiled on May 9th, 2021. The 2021 numbers are only a representation of school shootings that have occurred up until this point. Adapted from K-12 School Shooting Database by Riedman and O’Neill (2021). *Shooting incidents at k-12 schools 1970-present.*
Table 1-1

Types of non-active shooter events

<table>
<thead>
<tr>
<th>Type of Shooting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accidental</td>
<td>No intent to fire the weapon (e.g., showing off gun and it went off; gun in backpack went off).</td>
</tr>
<tr>
<td>Anger Over Grade/Suspension/Discipline</td>
<td>Primarily targeted teacher or school administrator due to poor grades, suspension, expulsion, or discipline. Also includes a school employee who targeted a school administrator or coworker following poor performance evaluation, suspension, or loss of employment.</td>
</tr>
<tr>
<td>Bullying</td>
<td>Bullied by the victim(s) and did not indiscriminately target random students.</td>
</tr>
<tr>
<td>Domestic with Targeted Victim</td>
<td>Had a romantic or familial relationship with the victim or victim was in a romantic relationship with a former lover of the shooter</td>
</tr>
<tr>
<td>Drive-by</td>
<td>Shots fired by a person in a vehicle at people, or another vehicle, on school property.</td>
</tr>
<tr>
<td>Escalation of Dispute</td>
<td>Physical or verbal altercation between the shooter and victim prior to the shooting or retaliation for a prior altercation or attack (e.g., during a fight between multiple students, one of the students involved pulled out a handgun and fired; following an argument earlier in the day, a student shot the other student that he/she argued with in the school parking lot).</td>
</tr>
<tr>
<td>Hostage/Standoff</td>
<td>A standoff at the school between an armed shooter and law enforcement with or without hostages taken. Hostages may have been released without injury and/or no shots were fired during the standoff.</td>
</tr>
<tr>
<td>Illegal Activity</td>
<td>Shots were fired during a robbery, sale or exchange of illegal drugs, trespassing, theft of property, or exchange of stolen property.</td>
</tr>
<tr>
<td>Indiscriminate</td>
<td>Targeted random victims with the intent to kill or injure as many as possible (e.g., fired into a crowd; shot students in the hallway and random classrooms).</td>
</tr>
</tbody>
</table>
### Type of Shooting

<table>
<thead>
<tr>
<th>Type of Shooting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intentional Property Damage</td>
<td>Shots were fired to cause damage to the school building or vehicles on school property without intent to cause injury.</td>
</tr>
<tr>
<td>Psychosis</td>
<td>Described as disconnected from reality and exhibiting symptoms of a severe psychotic episode or having paranoid schizophrenia stated in open-source reports (e.g., shooter believed the school was sending mind control signals or part of a government conspiracy).</td>
</tr>
<tr>
<td>Murder/Suicide</td>
<td>Shot targeted victim and then immediately killed self (including other bystanders who were struck by gunfire but were not intended targets).</td>
</tr>
<tr>
<td>Officer Involved Shooting</td>
<td>Police officer, SRO, or armed security guard was the only person to fire a weapon.</td>
</tr>
<tr>
<td>Racial</td>
<td>Shooter targeted victim based on race.</td>
</tr>
<tr>
<td>Self Defense</td>
<td>Shooter fired in self-defense or defense of someone else.</td>
</tr>
<tr>
<td>Suicide/Attempted</td>
<td>Suicide or attempted suicide by a shooter who was the only victim (not an indiscriminate shooting or revenge/bullying where shooter kills self during the shooting).</td>
</tr>
</tbody>
</table>

**Note.** This information was adapted from K-12 School Shooting Database by Riedman and O’Neill (2021). Center for Homeland Defense and Security: K-12 School Shooting Database. Retrieved May 10, 2021, from [https://www.chds.us/ssdb/methods/#activeShooter](https://www.chds.us/ssdb/methods/#activeShooter)

#### Timeline of Mass School Shootings

In order to impress a sense urgency about the mass school shooting epidemic, many researchers and scholars have compiled information about US mass school shootings historically in comparison to other countries (Ahmed & Walker, 2018; Baird et al., 2017; Barbieri & Connell, 2015; Dorn et al., 2013; Langman, 2018a; Patel, 2018; Victor, 2018). To organize such a large body of information, a chronological representation of the most notorious school shootings in the history of the United States has been created and can be found in Table 1-2. It is important to note that Table 1-2 is not an all-encompassing list of school shootings. Rather, Table 1-2 is a list of school shootings where two or more individuals are injured and/or killed by another individual or individuals who have intentionally planned to
lethally injure or maim one or more persons in any K-12 school in the United States. Table 2 was
amassed using a variation of Newman and Fox’s (2009) definition of *rampage school shootings*,
with specific emphasis on the number of victims effected by the shooting and as information
provided by the literature on mass school shootings.

Table 1-2

*A Chronological List of Intentional School Shootings that Occurred in K12 Schools with Two or
More Victims in the United States Between the Years of 1764 and 2018.*

<table>
<thead>
<tr>
<th>Year</th>
<th>School</th>
<th>City</th>
<th>State</th>
<th>Injured</th>
<th>Dead</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1764</td>
<td>Antrim Township School House</td>
<td>Greencastle</td>
<td>PA</td>
<td>6</td>
<td>11</td>
<td>17</td>
</tr>
<tr>
<td>1891</td>
<td>St. Mary's Parochial Schoola</td>
<td>Newburgh</td>
<td>NY</td>
<td>-</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>1927</td>
<td>Bath Consolidated School</td>
<td>Bath</td>
<td>MI</td>
<td>58</td>
<td>44</td>
<td>102</td>
</tr>
<tr>
<td>1940</td>
<td>South Pasadena School District</td>
<td>South</td>
<td>CA</td>
<td>1</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>1974</td>
<td>Clara W. Barton Elementary School</td>
<td>Chicago</td>
<td>IL</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>1979</td>
<td>Cleveland Elementary School</td>
<td>San Diego</td>
<td>CA</td>
<td>9</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>1982</td>
<td>Valley High School</td>
<td>Las Vegas</td>
<td>NV</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>1983</td>
<td>East Junior High School</td>
<td>Brentwood</td>
<td>NY</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>1984</td>
<td>49th Street Elementary School</td>
<td>Los Angeles</td>
<td>CA</td>
<td>12</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>1985</td>
<td>Goddard Junior High School</td>
<td>Goddard</td>
<td>KS</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Portland Junior High School</td>
<td>Portland</td>
<td>CT</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Spanaway Junior High School</td>
<td>Spanaway</td>
<td>WA</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>1986</td>
<td>Fergus County High School</td>
<td>Lewistown</td>
<td>MT</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>1987</td>
<td>Orme School</td>
<td>Mayer</td>
<td>AZ</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>1988</td>
<td>Oakland Elementary School</td>
<td>Greenwood</td>
<td>SC</td>
<td>9</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Hubbard Woods Elementary</td>
<td>Winnetka</td>
<td>IL</td>
<td>6</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Montefiore School</td>
<td>Chicago</td>
<td>IL</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Atlantic Shores Christian School</td>
<td>Virginia Beach</td>
<td>VA</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1989</td>
<td>Stockton schoolyard shooting</td>
<td>Stockton</td>
<td>CA</td>
<td>31</td>
<td>5</td>
<td>36</td>
</tr>
<tr>
<td>1992</td>
<td>Lindhurst High School</td>
<td>Olivehurst</td>
<td>CA</td>
<td>10</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>1993</td>
<td>Central Middle School</td>
<td>Sheridan</td>
<td>WY</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Chelsea High School</td>
<td>Chelsea</td>
<td>MI</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>1994</td>
<td>East Carter High School</td>
<td>Grayson</td>
<td>KY</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Year</td>
<td>School</td>
<td>City</td>
<td>State</td>
<td>Injured</td>
<td>Dead</td>
<td>Total</td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------------</td>
<td>------------</td>
<td>-------</td>
<td>---------</td>
<td>------</td>
<td>-------</td>
</tr>
<tr>
<td>1994</td>
<td>Ryle High School</td>
<td>Union</td>
<td>KY</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Wickliffe Middle School</td>
<td>Wickliffe</td>
<td>OH</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>1995</td>
<td>Richland High School</td>
<td>Lynville</td>
<td>TN</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Blackville-Hilda High School</td>
<td>Blackville</td>
<td>SC</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1996</td>
<td>Frontier Junior High School</td>
<td>Moses Lake</td>
<td>WA</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>1997</td>
<td>Pearl High School</td>
<td>Pearl</td>
<td>MS</td>
<td>7</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Heath High School</td>
<td>West Paducah</td>
<td>KY</td>
<td>5</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Bethel High School</td>
<td>Bethel</td>
<td>AK</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Stamps High School</td>
<td>Stamps</td>
<td>AR</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>1998</td>
<td>Thurston High School</td>
<td>Springfield</td>
<td>OR</td>
<td>25</td>
<td>4</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Westside Middle School</td>
<td>Jonesboro</td>
<td>AR</td>
<td>10</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Parker Middle School</td>
<td>Edinboro</td>
<td>PA</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Armstrong High School</td>
<td>Richmond</td>
<td>VA</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>1999</td>
<td>Columbine High School</td>
<td>Littleton</td>
<td>CO</td>
<td>23</td>
<td>14</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Heritage High School</td>
<td>Conyers</td>
<td>GA</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Fort Gibson Middle School</td>
<td>Fort Gibson</td>
<td>OK</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>2000</td>
<td>Beach High School</td>
<td>Savannah</td>
<td>GA</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Lake Worth Middle School</td>
<td>Lake Worth</td>
<td>FL</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2001</td>
<td>Santana High School</td>
<td>Santee</td>
<td>CA</td>
<td>13</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Rocori High School</td>
<td>Cold Spring</td>
<td>MN</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Bishop Neumann Jr-Sr High School</td>
<td>Williamsport</td>
<td>PA</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2003</td>
<td>Red Lion Area Jr High School</td>
<td>Red Lion</td>
<td>PA</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Columbia High School</td>
<td>Greenbush</td>
<td>NY</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2005</td>
<td>Red Lake High School</td>
<td>Red Lake</td>
<td>MN</td>
<td>7</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Granite Hills High School</td>
<td>El Cajon</td>
<td>CA</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Campbell County High School</td>
<td>Jacksboro</td>
<td>TN</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2006</td>
<td>West Nickel Mines School</td>
<td>Bart Township</td>
<td>PA</td>
<td>5</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Orange High School</td>
<td>Hillsborough</td>
<td>NC</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Pine Middle School</td>
<td>Reno</td>
<td>NV</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Platte Canyon High School</td>
<td>Bailey</td>
<td>CO</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Weston High School</td>
<td>Cazenovia</td>
<td>WI</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2007</td>
<td>Springwater Trail High School</td>
<td>Gresham</td>
<td>OR</td>
<td>10</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Mojave High School</td>
<td>Las Vegas</td>
<td>NV</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Success Tech Academy</td>
<td>Cleveland</td>
<td>OH</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Henry Foss High School</td>
<td>Tacoma</td>
<td>WA</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Year</td>
<td>School</td>
<td>City</td>
<td>State</td>
<td>Injured</td>
<td>Dead</td>
<td>Total</td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------------</td>
<td>------------</td>
<td>-------</td>
<td>---------</td>
<td>------</td>
<td>-------</td>
</tr>
<tr>
<td>2010</td>
<td>Kelly Elementary School</td>
<td>Carlsbad</td>
<td>CA</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Deer Creek Middle School</td>
<td>Littleton</td>
<td>CO</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>2011</td>
<td>Millard South High School</td>
<td>Omaha</td>
<td>NE</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2012</td>
<td>Sandy Hook Elementary School</td>
<td>Newtown</td>
<td>CT</td>
<td>2</td>
<td>27</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Chardon High School</td>
<td>Chardon</td>
<td>OH</td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Perry Hall High School</td>
<td>Baltimore</td>
<td>MD</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2013</td>
<td>Sparks Middle School</td>
<td>Sparks</td>
<td>NV</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Taft Union High School</td>
<td>Taft</td>
<td>CA</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Arapahoe High School</td>
<td>Littleton</td>
<td>CO</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2014</td>
<td>Franklin Regional High School</td>
<td>Murrysville</td>
<td>PA</td>
<td>20</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Marysville-Pilchuck High School</td>
<td>Marysville</td>
<td>WA</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Berrendo Middle School</td>
<td>Roswell</td>
<td>NM</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Reynolds High School</td>
<td>Troutdale</td>
<td>OR</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2016</td>
<td>Townville Elementary School</td>
<td>Townville</td>
<td>SC</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Madison Junior-Senior High School</td>
<td>Middletown</td>
<td>OH</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Independence High School</td>
<td>Glendale</td>
<td>AZ</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2017</td>
<td>Freeman High School</td>
<td>Rockford</td>
<td>WA</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>2018</td>
<td>Marjory Stoneman Douglas High School</td>
<td>Parkland</td>
<td>FL</td>
<td>17</td>
<td>17</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>Santa Fe High School</td>
<td>Santa Fe</td>
<td>TX</td>
<td>13</td>
<td>10</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Marshall County High School</td>
<td>Benton</td>
<td>KY</td>
<td>14</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Highland High School</td>
<td>Palmdale</td>
<td>CA</td>
<td>1</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Great Mills High School</td>
<td>Lexington Park</td>
<td>MD</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Noblesville West Middle School</td>
<td>Noblesville</td>
<td>IN</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Forest High School</td>
<td>Ocala</td>
<td>FL</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Raytown South Middle School</td>
<td>Raytown</td>
<td>MO</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Groversville Middle School</td>
<td>Groversville</td>
<td>NY</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Pearl-Cohn High School</td>
<td>Nashville</td>
<td>TN</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Oxon Hill High</td>
<td>Oxon Hill</td>
<td>MD</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Lincoln High School</td>
<td>Philadelphia</td>
<td>PA</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Italy High School</td>
<td>Italy</td>
<td>TX</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>


*Information regarding the St. Mary's Parochial School shooting is very limited. An article from the New York Times (1891) states, "several" boys were wounded. No specific number of victims is*
provided in any of the research found.

The offenses have been assembled so that any school shooting that resulted from an accident or unintentional discharge of a firearm, despite how many persons were injured or killed, were excluded from Table 1-1 as these events were not intended to cause harm to other individuals. Regardless of how these data are sorted, the commonality is a significant and steady increase in the number of mass school shootings that have occurred as the decades have passed, as noted in the literature. There is a considerable possibility that some events were not included in Table 1 that should have been and vice versa, because media outlets and researchers often inadvertently skew and misrepresent information by using varied criteria to define school shootings within the context of their work (Newman & Fox, 2009).

The year 2018 saw a record number of deaths related to mass school shootings than those in years past (Ahmed & Walker, 2018; Patel, 2018; Victor, 2018). One report concluded that as of May 18th, 2018, the number of student deaths recorded as a result of mass school shootings was higher than the deaths associated with active military combat (Bump, 2018). These are astounding and frightening facts. Although there has been an uptick in mass school shootings this past year, school shootings are hardly a new occurrence in society, nor is the trend in rising occurrences (Arnold, 2015; Ash & Sanders, 2018; Baird, Roellke, & Zeifman, 2017; Beland & Kim, 2016; De Apodaca, Brighton, Perkins, Jackson, & Steege, 2012; Duplechain & Morris, 2016; Elliott, 2015; Gerard, Whitefield, Porther, & Browne, 2016; Haan & Mays, 2013; Jonson, 2017). In fact, the earliest recorded school shooting dates back to the 1760s (Brophy, 2016; Dorn, Satterly, Dorn, & Dorn, 2013; Duplechain & Morris, 2014). According to the K-12 School Shooting Database, in the last 20 years since the school shooting happened at Columbine High School, the average number of days in-between school shooting incidents has decreased (Melgar,
Further, since 1999 there have been 68 school shootings that have been documented using the FBI’s definition of an active school shooter, “an individual (or individuals) actively engaged in killing or attempting to kill people in a populated area,” no matter the number of victims” (para.4). Like the FBI, they excluded any instances of drug/gang violence and accidental discharges of a firearms. Additionally, Melgar (2019) excluded incidents typically defined as domestic violence. It was deduced that:

- From 1999 to 2014, the average number of days between shootings was 124 days. From 2015 to 2018, the average was 77 days. (para. 9)

- In the 13 years between 1999 and 2012, there were four periods of time longer than 400 days without a single school shooting. The longest period was one year and six months — or 574 days — from April 2001 to November 2002. (para. 10)

- Then, on Dec. 14, 2012, 27 people were killed at Sandy Hook Elementary School in Newtown, Connecticut. Since Sandy Hook, the United States has not gone more than 231 days without a school shooting. (para. 11)

As a result of the rising number of school shootings taking place, there has been an outcry for preventative and precautionary measures to be put in place by legislative and educational leaders in the school setting.

**Media and Mass School Shootings**

Media is another major theme that has emerged during the review of the literature relating to mass school shootings. Popular culture and media, be it in the form of fiction or non-fiction literary works, movies, news reports, musical lyrics, or video games, play a major role in the perpetuation and understanding of mass school shootings by the multitudes (Ash & Saunders, 2018; Barbieri & Connell, 2015; Evans, 2016; Jonson, 2017; Kiilakoski & Oksanen, 2011).
Barbieri and Connell (2015) reason, “because news and media sources are the most common form of information dispersion to the public, they are also the most powerful in terms of shaping public definitions” (p. 27). Holding true to this idea, through examination of the literature, it arose that news outlets and other forms of media have wielded this same power to mold public perceptions (Barbieri & Connell, 2015; Elsass et al., 2016). This power is referred to as creating a cultural script (Elsass et al., 2016). A cultural script “define[s] our understanding of the various events that we engage in daily: our expectations for interactions and others’ responses to us. Rarely are we explicitly taught cultural scripts; we [unconsciously] absorb them [from media]” (Ash & Saunders, 2018, p.37).

**Media and Moral Panic.** Cohen (1972) defined the state of moral panic as being characterized by “a condition, episode, person, or groups of persons emerg[ing] to become defined as a threat to societal values and interests” (p. 4). Moral panic is often ignited by news and media outlets and is marked by “stylized and stereotypical” (Cohen, 1972, p.4) claims that compel the masses to demand society’s leaders act against a perceived threat. Often moral panic, over a particular concern, happens in a cyclic fashion where, “the condition then disappears, submerges, or deteriorates” (p.9) when a new moral panic emerges just to resurface once again later in time (Cohen, 1972; Cohen, 1999; Jonson, 2017; Muschert, 2007; Thompson, 2013; Titus, 2005). For example, tainted Halloween candy, terrorism post 9-11, teen sex parties, and flashing of headlights and gang recruitment are all examples of moral panics.

The continuous stream of news reports and coverage, regarding school shootings, victims of the shootings, gun laws, etc. allows mass media outlets to not only create the cultural script of the mass school shooter, but to also create a moral panic. As suggested earlier, the apex of a moral panic is the demand for change. More recently, parents are speaking out on what they want
to be done to protect their children (Cohn & Teruelle, 2019). In the context of the moral panic media coverage has created, regarding mass school shootings, there have been many responses - that will be discussed in the following chapter- to the demands for change that have been initiated.

**Summary**

Although researchers ascertain that the occurrences of school shooting are on the rise (Arnold, 2015; Ash & Sanders, 2018; Baird et al., 2017; Beland & Kim, 2016; Bump, 2018; De Apodaca et al., 2012; Duplechain & Morris, 2016; Elliott, 2015; Gerard et al., 2016; Haan & Mays, 2013; Jonson, 2017; Langman, 2016a), it is noteworthy to mention that, “adolescents are more likely to experience serious or fatal injury off school property or as the result of hereditary and congenital defects than to be injured during a school shooting, despite media portrayals to the contrary” (Barbieri & Connell, 2015, p.23). Assuming this indeed is fact, why is there such a public outcry for change when school shootings do occur? Jonson (2017) offers one explanation for the extreme push for change in relation to school shootings. He writes,

> One answer is absolutely the tragic nature of these offenses. These attacks harm our children, who are defined by their innocence and naivety of the realities of a harsh world. They are just beginning their lives filled with hope and promise. Their deaths—particularly in a school setting which is marked with learning the alphabet, making art projects that hang on the refrigerator, conquering mathematical equations, and preparing for the challenge of college—seem especially unfair and horrific. (p.959)

When mass school shootings transpire, they are significant because the events usually result in a high number of victims who are usually young, which leads to an increase in media coverage, thereby creating a mass panic and a need to place blame (Cohen, 1972). But more importantly, it
sparks a demand for changes to happen within our society to ensure the safety of the children in our communities (Ash & Saunders, 2018; Barbieri & Connell, 2015; Jonson, 2017).

Currently, there exists a limited body of information relating to the causes of mass school shootings and best practices for prevention of these incidences - more than likely due to the complexity, infrequency, and inconsistency of each individual school shooting (Baird et al., 2017; Gereluk, Donlevy, & Thompson, 2015; Guis, 2018). The studies that do exist, largely, consist of literature reviews and statistical data and/or reports commissioned by government agencies (Mazmanyan, 2020). As current or former students perpetrate most school shootings (Jonson, 2017), it is perplexing that there currently exists a gap in the literature that explores the perspectives of students about the causes of mass school shootings and best practices for preventative measures.

The purpose of this study is to explore the perceptions of recent high school graduates regarding how their experience as a student was impacted by the changes in school safety measures considering the increased occurrences of mass school shootings. The insight gathered by exploring these topics from the perspective of the students will add to the body of empirical literature that presently exists, but also should also be considered as a factor in informing meaningful policies fashioned by educational leaders and future educational legislation in the hopes of creating school climates in which students feel safe.
CHAPTER 2: LITERATURE REVIEW

School violence and mass school shootings are increasing at an alarming rate in our nation (Arnold, 2015; Ash & Sanders, 2018; Baird, Roellke, & Zeifman, 2017; Beland & Kim, 2016; De Apodaca, Brighton, Perkins, Jackson, & Steege, 2012; Duplechain & Morris, 2016; Elliott, 2015; Gerard, Whitefield, Porther, & Browne, 2016; Haan & Mays, 2013; Jonson, 2017). Institutions of learning, once deemed safe and sacred, have turned into metaphorical and literal battlegrounds (Jonson, 2017). Students are reporting fear and anxiety at school when a routine fire drill occurs (Awada, Zhu, Becerik-Gerber, Lucas, & Southers, 2021; Huskey & Connell, 2020; Moore-Petinak, Waselewski, Patterson, & Chang, 2020; O’Neill, McCuddy, & Esbensen, 2019). Parents are concerned about their children’s safety while at school – often wondering if that day will be the last day that they send their child(ren) to school (Awada et al., 2021; Huskey & Connell, 2020; Moore-Petinak et al., 2020; O’Neill et al., 2019). Educators worry endlessly about the very real possibility that the Active Shooter Drills they are mandated to participate in will become a reality; but more importantly how they will protect their students, even if that results in losing their own lives (Awada et al., 2021; Huskey & Connell, 2020; Moore-Petinak et al., 2020; O’Neill et al., 2019). Often, the families of school employees and first responders worry for their loved ones’ safety while performing their job duties, as well (Awada et al., 2021; Huskey & Connell, 2020; Moore-Petinak et al., 2020; O’Neill et al., 2019). Mass school shootings do not just affect those that are within the school at the time, they can affect the entire community in which they are nestled, in addition to creating an urgent panic and fear among the masses across the country and globe (Jonson, 2017). Due to the influence and far reach that these horrific events foster; it is crucial we understand the factors contributing to school shootings.
The following chapter will explore school and policy practices in response to the increased occurrences of mass school shootings. Additionally, this section will investigate student perceptions of the school safety measure that have been put in place due to the practice and policy responses. Further, this chapter will delve into the life cycle of public policy changes with a culmination and focus on how student agency in Florida helped to create public policies to protect students from violence within their schools. Finally, I will discuss the types of studies that have already been conducted in relation to mass school shootings and preventative measures and why there is a lack of information regarding these events in scholarly literature, this chapter will lay the basis for the study at hand, as well as advocate for why the current study is warranted.


**School Climate.** The constructs of *school climate and culture* are often, and erroneously, used interchangeably by educational leaders and policymakers when discussing school environments (Kiliakoski & Oksanen, 2011). MacNeil, Prater, and Busch (2009) explain that ‘culture’ and ‘climate’ are two constructs that are often mistaken for each other but they are not the same. They clarify that a school’s culture is “the values and norms” (p.75) of the school and the school’s climate is viewed in terms of actual “behaviors” (p.75) that take place within the school. A school’s climate directly effects school culture.

Much like other concepts discussed in chapter one, many definitions of school climate exist using varying parameters to distinguish it (Cohen, McCabe, Michelli, & Pickeral, 2009; Farinas, 2019). Farinas (2019) explained that school climate can be thought of as “the social atmosphere of the ‘learning environment’” (p.95). Additionally, Goldweber, Waasdorp, and Bradshaw (2013) defined a school’s *climate and culture* as “a multidimensional construct
consisting of shared beliefs, values, and attitudes that shape student-student and student-teacher
dynamics and set the tone for behaviors that are acceptable and normative” (p.470). In 2007, the
National Center for Learning and Citizenship, Education Commission of the States, and the
Center for Social and Emotional Education, established a universal and widely accepted
definition for school climate. It was written, “. . . school climate refers to the quality and
character of school life. School climate is based on patterns of people’s experiences of school life
and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and
organizational structure” (Cohen et al., 2009, p. 182; Farinas, 2019, p. 97).

The perceived sense of safety within a school’s environment is widely accepted as a
major factor impacting school climate (Bosworth, Ford, & Hernandaz, 2011; Elsass et al., 2016;
Farinas, 2019; Goldweber, et al., 2013; Hong & Eamon, 2012; Hong, Voisin, & Lee, 2016;
Jonson, 2017; Langman, 2017b; Lenzi, Sharkey, Furlong, Mayworm, Hunnicutt, & Vieno, 2017;
Mitchell, Kensler, & Tschannen-Moran, 2018; Varjas, Henrich, & Meyers, 2009; Williams,
Schneider, Worern, & Langhinrichsen-Rohling, 2018). Siller et al. (2021) wrote

Research finds that school climate plays a critical role in understanding rates of
aggression among students. School climate is operationalized as the shared beliefs,
values, and attitudes of students, faculty, and administrators that set the parameters of
acceptable behavior within the school. Common indicators of school climate include the
willingness of staff and students to intervene in aggressive situations, awareness of
problematic peer-to-peer behavior, and support from administrators to prevent aggressive
behavior (e.g., disciplinary support). A poor school climate can act to encourage
aggressive behaviors among youth and discourage reporting of aggressive behaviors
among youth to school staff. Research shows that schools with more positive climates, in the form of commitments to violence prevention, have lower rates of violence. (p. 244-5)

If this holds true, we can conclude that most schools targeted for a mass school shooting had poor climate due to the fact that according to the cultural scripts of school shooters, the perpetrators were teased and not accepted by their peers, creating a poor school climate for the culprits (Elsass et al., 2016; Jonson, 2017; Langman 2017b) and “provoking them to lash out in a such a violent manner” (Jonson, 2017, p. 2016). With the threat of mass school shootings at an all-time high, there has been a significant increase in research surrounding school and public policy addressing school climate and safety. There are two major schools of school climates that are at varying ends of the spectrum: Authoritarian school climates and school climates that base their practices in humanistic education. Characteristics of these types of school climates will be discussed below.

**School Climates Based in Humanistic Education.** Originating from the teachings of many humanistic psychologists, humanistic education is a school of thought that takes an interest in developing a student’s whole self and not just their academic knowledge. It poses that all students have their own individualized traits, abilities, needs and the schools should take this into consideration when teaching children (Aloni, 2013; Pour Ali, Seif Naraghi, & Naderi, 2017). Humanistic Education encourages students to take an active role in their educations and is characterized by creating positive learning environments and self-motivated students. It also sees teachers as facilitators to a students’ education. Facilitators develop the emotional stability and self-esteem of students by promoting acceptance of individual differences (Pour Ali et al., 2017). Further Aloni (2013) clarifies that Humanistic Education is defined by the following five characteristics
[1] The holistic approach to the student that seeks to foster and develop their full range of aptitudes, intelligences and literacies; [2] interpersonal relations based on genuine caring, kindness, reasonableness, fairness and reciprocity; [3] a social climate of security, trust, acceptance and multiculturalism, together with restrained and tolerant pluralistic behavior; [4] an intellectual climate that fosters and cultivates breadth of knowledge and cultural wealth along with autonomous, responsible, critical and creative thinking; [5] teaching methods that provide the student with meaningful and experiential learning— to render the ‘tree of knowledge’ into the ‘tree of life.’ (p.1069)

This type of education produces students that enjoy the process of learning and can foster connections with all individuals in their school’s community.

**Connections, relationships, and school violence.** William Glasser (1997), founder of a school of humanistic psychology called Choice Theory, explains, “human relationship problems are the most difficult to solve but surprisingly easy to understand. They are all some variation of "I don't like the way you treat me, and, even though it may destroy my life, your life, or both, this is what I am going to do about it" (p. 598; Zeeman, 2006, p.46). By this means, Choice Theory concludes that any act of violence, including mass school shootings, happens because there is an issue with how the perpetrator is perceiving others’ actions towards themselves and has chosen to behave to in a particular manner to gain satisfaction for a need. It is the dissonance between the perpetrator’s perceived world and their quality world that fuels the choice to commit mass school shootings. If this indeed is true, then we can argue that by improving the relationship between the shooter and others, we may be able to circumvent many mass school shootings from happening. Glasser (2000) explains,
Unhappiness, combined with the strong feeling in the perpetrator that others should be punished for the way he feels, is by far the main reason that anyone strikes out at another human being. Why the unhappy boy or man lashes out at the particular time he does, however, cannot be predicted. What can be predicted is that almost all unhappy boys and men carry within them the potential for violence, and in our schools there are many unhappy students. Therefore, the key to reducing violence is to do what I believe can be done in every school--reduce the number of unhappy students. The fewer there are, the fewer school problems including violence. (p. 77)

Glasser (2001) further urges that “the absolute minimum for happiness is one strong, satisfying connection” (p.5; Zeeman, 2006, p.50). Ergo, a single and meaningful connection and/or relationship within the school setting with a perpetrator of a mass school shooting could be the key to preventing mass school shootings from occurring. He continues to clarify that in order to be happy, people essentially need to, “figure out how to get along well and connect with the important people in our lives; that is, to connect to the extent we want with friends, spouses, lovers, children, parents, teachers, bosses and coworkers” (Glasser, 2001, p. 5; Zeeman, 2006, p.50).

Assuming that Glasser’s (1990; 1997; 1999; 2000; 2005) claims are correct, if people related to one another better that the world would be a more peaceful place, thus eliminating the threat of mass school shootings and other forms of violence, especially in the school setting, concluding that relationships are a chief point in fixing the violence problems in our schools. People who are “diagnosed as mentally ill [suffers of depression] …have no pathology in their brains; they are not mentally ill. The unifying problem they all share is unhappiness, specifically being involved in unhappy relationships” (Glasser, 2005, p.16). If we can fix the relationships,
we then can fix violence. In direct contract with humanistic takes on education and school climates, the more widely used practice of school hardening and authoritarian practices are methods that legislators and educational leaders feel have a better impact on improving school climates and lowering incidents of violence within the school setting.

**School Climates Rooted in Authoritarian Practices.** Authoritarian school climates are heavily based on authoritarian parenting practices that aim to control a child with fear of punishment (Nickerson & Spears, 2007). This is a form of parenting that puts emphasis on, “obedience by attempting to control and behaviors and attitudes of a child, often through punitive, forceful measures, in accordance with an absolute standard of conduct” (Nickerson & Spears, 2007, p.6). In a school setting, authoritarian practices are thought to dissuade students from committing offenses, with emphasis on violence, by instilling fear of harsh and punitive consequences (Arum, 2003; Nickerson & Spears, 2007). Many common features of schools that operate from an authoritarian philosophy, include metal detectors being installed on school campuses, hired police presence in the school building and at school events (Nickerson & Spears, 2007; Noguera, 1995; Pagliocca & Nickerson, 2001), strict and exacting consequences for students who have broken behavior policies in order to scare other students and deter them from committing the same offences (Nickerson & Spears, 2007; Skiba, 2000; Skiba & Peterson, 1999), and even the practice of corporal punishment in some schools (Nickerson & Spears, 2007). Often, these practices lead to hardened schools (Mann & Brock, 2020) and produce what is known as a Security Theater. Schneier (2003) explains, “security is partially a state of mind … one of the goals of a security countermeasure is to provide people with a feeling of security in addition to the reality. But some countermeasures provide the feeling of security instead of the
reality. These are nothing more than *security theater*” (p. 38). This seems to be the feelings of many people affected by policies enacted in schools to prevent school shootings and violence.

**The Security Theater: School Hardening and Student Perceptions on School Safety.**

In order to improve safety at a school’s building level, many commissioned reports, like the FCSS (2018), The FBI’s *Behavioral Analysis Unit’s Study of Pre-attack Behaviors of Active Shooters in the United States* (2013), *The Violence Prevention in Schools* (2017) report commissioned by the Department of Justice and the FBI, and the *Indicators of School Crime and Safety* (2019) by the National Center for Education Statistics, recommend that schools restrict entrances with trained adults and metal detectors, installation of panic alarms, security cameras, and strategically placed telephones, and arming teachers and officials. Additionally, it has been suggested that adopting zero tolerance policies that incorporate law enforcement in the school system by hiring school resource officers (SROs) would be another strategy to help mitigate the risk of a mass school shooting happening. Other suggestions include proactive response protocols that are clear and understood by all parties in the building and all first responders and law enforcement agencies prior to an emergent situation taking place, as well as active shooter drills. Within the classroom, implementation of school social and emotional curriculum in classrooms, improved and amplified numbers of afterschool enrichment programs and activates to promote belongingness, improved parent and community engagement, and a decrease in student to adult ratios are all be points that are perceived to assist in protecting our schools from the threat of a mass school shooting (Arnold, 2015; Ash & Saunders, 2018; Beland & Kim, 2016; De Apodaca et al., 2012; Duplechain & Morris, 2014; Elliott, 2015; Ferguson et al., 2011; Gereluk et al., 2015; Gius, 2018; Haan & Mays, 2013; Hudson et al., 2005; Keehn & Boyles, 2015; Jonson, 2017; Klein, 2006).
As helpful as these suggested safety measures are, often they are not useful in protecting against the threat of mass school shootings. Cuellar, Elswick, and Theriot (2018) noted, “current research suggests many common authoritarian strategies such as metal detectors, security cameras, and guards in schools are not effective methods in preventing school violence” (p.272). It seems to be the consensus that security measures, like this, are counterintuitive to what their purpose serves (Cuellar et al., 2018; Lamoreaux & Sulkowski, 2019; Mann & Brock, 2020) because, as Jonson (2017) points out,

the stubborn reality is that the majority of school shooters are students, faculty, or staff of the school who have the proper identification to gain entry to the grounds…In addition, access control measures are often easily bypassed by those who are determined to carry out a shooting at school. (p. 964)

Baird et al. (2017) found that schools where mass shootings took place had significantly higher enrollments than their state’s average and that schools with smaller enrollment are less likely than those with larger enrollments to be targeted for a mass school shooting. Further, they claim that transitions from smaller schools (where students felt well supported) to larger schools (where they become just a face in the crowd of students) could contribute to a student’s mental health, which could be a major risk factor for potential school shooters. They suggest that “investigations into supportive school services (i.e., counseling) and programs that foster collaboration between community members and a deeper sense of school pride (i.e., athletics and other extracurriculars) may provide an avenue through which to better understand protective mechanisms against school violence” (p. 268).

It was found, “in more than 80% of the cases, at least one person knew the attacker was planning something; two or more people knew in almost 60 percent of the cases” (Crawford,
The authors also echoed the idea that creating opportunities to improve relationships between students, teachers, staff, and administrators is imperative to creating a safe culture that promotes caring and belonging, so that students feel comfortable reporting indiscretions or possible threats to a trusted adult.

**Perceived Safety and Student Perceptions on School Safety.** According to the Canterbury District Health Board’s Wellbeing index (2021), perceived safety is an “individuals’ perceptions of safety and involves generalized judgements about the chance of injury or loss” (p.1). Perceptions of safety can be affected by “direct experience of harm” (p.1) and/or the “fear of harm” (p.1) but are “particularly sensitive to the physical environment (e.g., one’s home vs. public places) because these physical environmental factors are tangible to residents” (p.1). Meaning that an individual’s perceived safety is strongly influenced by their physical surroundings and their lived experiences. This holds true for students and their perceived safety in the school setting.

The perceived sense of safety within a school’s environment is widely accepted as a major factor impacting school climate (Bosworth, Ford, & Hernandaz, 2011; Elsass et al., 2016; Farinas, 2019; Goldweber, et al., 2013; Hong & Eamon, 2012; Hong, Voisin, & Lee, 2016; Jonson, 2017; Langman, 2017b; Lenzi, Sharkey, Furlong, Mayworm, Hunnicutt, & Vieno, 2017; Mitchell, Kensler, & Tschannen-Moran, 2018; Varjas, Henrich, & Meyers, 2009; Williams, Schneider, Worern, & Langhinrichsen-Rohling, 2018). With the threat of mass school shootings at an all-time high, there has been a significant increase in research surrounding school and public policy addressing school climate and safety. From this research, many states and school districts have implemented changes to their school’s security measures to increase safety, within the school setting, from threats of active shooters. These efforts are often referred to as school
hardening and can involve many changes including installing metal detectors at school entrances, security cameras outside and inside the school building, and the presences of law enforcement in school buildings (Cuellar, Elswick, & Theriot, 2018).

Researchers have found that school hardening efforts can be ineffective. For instance, Price and Khubchandani (2019) conducted a systematic literature review of 630 publications that were ciphered down to 89 articles. They concluded,

Hundreds of millions of dollars have been spent to harden schools. None of the currently employed school firearm violence prevention methods have empirical evidence to show that they actually diminish firearm violence in schools. To the extent that schools adopt ineffective firearm violence prevention measures, they are creating a false sense of security. (p. 154)

Additionally, the Stress in America surveys also found that the fear of mass shootings was still a significant stress factors for Americans, despite the efforts to eradicate them (APA, 2018; 2019). Specifically, the 2018 Generation Z report stated,

seventy-five percent of those in this age group report mass shootings as a significant source of stress, and nearly as many (72 percent) say the same about school shootings or the possibility of them occurring. Around seven in 10 Millennials report similar feelings about these events (69 percent about mass shootings and 73 percent about school shootings or the possibility of one occurring).… More than half of Gen Zs who are in school say they experience stress at least sometimes when considering the possibility of a shooting at their school and more than one in five (21 percent) say the possibility of a shooting at their school is a source of stress either constantly or often. (APA, 2018, p.2)
Furthermore, the American Psychological Association [APA] (2018) found, “security measures taken by schools reduce the stress for some, but not most, parents and students” (p.2). They explain that from the individuals surveyed, 30 percent of the individuals stated that school hardening measures have not done anything to alleviate their stress and another 36 percent of the individuals surveyed stated that the school hardening measures somewhat or significantly increased the stress they feel about school shootings.

Researchers report that certain factors play a role in creating a perceived safe school environment by students and they include a sense of community, teacher support, security cameras, fences, locked doors, small school and class sizes, good neighborhoods, visitors passes, school identification cards, hall monitors, school safety officers, teachers presence in the hallways, lighting, clear and consistent enforcement of school rules, parent student relationships, parent involvement in school activities, communication, ease of making friends, and practice drills (Bosworth, et al., 2011; Cowie, et al., 2008; Hong & Eamon, 2012; Hong, et al., 2016; Lenzi, et al., 2017; Mitchell, et al., 2018; Williams, et al., 2018). One major theme that emerged from the literature was that bullying was a significant factor related to how safe students felt and a school’s culture and climate (Cowie, et al., 2008; Goldweber, et al., 2013; Lenzi, et al., 2017; Williams, et al., 2018).

Considering the security measures that have been implemented within the school setting, one would think that these processes would have a positive impact on the perceived safety of schools. Surprisingly, the American Psychological Association [APA] (2018) found Security measures taken by schools reduce the stress for some, but not most, parents and students. Around one-third (34 percent) of parents who say their child’s school has implemented security measures in response to school shootings say this has reduced
stress significantly or somewhat; nearly the same percentage (30 percent) say such measures have not done anything to alleviate their stress. The largest percent (36 percent) say it has somewhat or significantly increased the stress they feel about school shootings. While slightly more than one in five Gen Z students (22 percent) say security measures in their school have somewhat or significantly increased their stress about school shootings, slightly more than four in 10 (41 percent) say such measures have done nothing for their stress. For just more than one-third of students (37 percent), security measures have reduced their stress significantly or somewhat about school shootings. (p.2)

The Stress in America surveys also found that the fear of mass shootings was still a significant stress factors for Americans, despite the efforts to eradicate them (APA, 2018; 2019). More specifically, the 2018 Generation Z report, stated

seventy-five percent of those in this age group report mass shootings as a significant source of stress, and nearly as many (72 percent) say the same about school shootings or the possibility of them occurring. Around seven in 10 Millennials report similar feelings about these events (69 percent about mass shootings and 73 percent about school shootings or the possibility of one occurring).…. More than half of Gen Zs who are in school say they experience stress at least sometimes when considering the possibility of a shooting at their school and more than one in five (21 percent) say the possibility of a shooting at their school is a source of stress either constantly or often. (APA, 2018, p.2)

In a study conducted by Mazmanyan (2020), college students involved in a mass school shooting offered their thoughts on their post mass school shooting experiences with emphasis on school safety measures. In this qualitative study, Mazmanyan (2020), posed three questions to his participants with one being of particular interest regarding this study: “What notable design,
spatial, interpersonal, or architectural features of a shared space make it feel safe, and can that safety be increased?” (p. 7). The culmination of responses to this question consisted of better communication between the university and students during the attack, the ability to carry their concealed weapons onto campus with them, increased safety measures, like security and campus police presences within the building with increased surveillance by trained professionals, metal detectors, and even limiting the access to the campus by people not affiliated with the university.

This study particularly stands out in comparison with the rest because it addressed the issues of student safety from the perspective of the students. In the search for literature, very few empirical articles exist exploring students’ perspectives, let alone discuss issues like their opinions on safety measures that could be put in place to assist in keeping them safe. The findings that Mazmanyan (2020) compiled serve as a steppingstone for current issues in safety in the colligate setting, but many of these protocols are already in place in the K12 setting. In these settings, there is a gap in the literature regarding K12 safety measures being put in place from students’ perspectives.

The importance of perceived safety and feeling safe in school. Feeling safe in school is important for many reasons. Williams et al. (2018) stated, “feeling safe at school has been associated with enhanced classroom engagement, academic success, and overall student well-being” (p. 319). Similarly, Lenzi, et al. (2017) advocated that feeling unsafe at school has many detrimental effects on students. This includes students avoiding certain areas in the school like stairwells, and restrooms, chronic absenteeism, and even students carrying weapons to school for protection. They also noted that feeling unsafe in school can negatively affect career aspirations at all levels of the k-12 school system and more importantly have adverse effects on students’
psychological and physical health. Compounding the issue, feeling unsafe in school can also lead to lowered academic achievements (Beland & Kim, 2016).

Further, drawing on the ideas of humanistic psychologist Abraham Maslow’s *Hierarchy of Needs*, having school environments where students feel safe is extremely important because if a student does not have fulfillment of one of their basic needs, feeling safe, they will be unable to self-actualize and perform to their best abilities in the academic setting (Aanstoos, 2003; D’Souza & Gurin, M, 2016; Freita & Leonard, 2011; Koltko, 2006; Maslow, 1943; Maslow, 1968; McLeod, 2007; Poston, 2009). Feeling safe is imperative to a student’s success.

Researchers, like Lenzi et al. (2017) and Beland and Kim (2016), have found that students’ perceptions of safety within the school setting directly correlate with academic achievement, school truancy, avoidance of certain areas of the school, students carrying weapons to school with them for protection, career aspirations of students, and more importantly student mental and physical wellbeing.

*Variations in student perceptions of school safety.* Researchers have found that certain variables, such as gender, race, age, socioeconomic status, and living environments, have a significant effect on how safe students perceive themselves to be in school. A study conducted by Perumean-Chaney and Sutton (2012) found that students were more likely to think that their school was safe if they were males, Caucasian, had high GPAs, and felt safe in their neighborhood compared to students who “experienced prior victimizations, had larger class sizes, and who attended schools that had disorder problems” (p. 570). Further building on this, Noguera (2007) found that, “students in the small schools were far more likely to report that they felt safe (94%), as compared to students at the large schools (46%). They were also more likely to respond affirmatively to the question ‘If I feel threatened by someone at school there is an
adult I can turn to for support’ (92%, compared to 38%)” (p. 208). Hong and Eamon (2011) concluded students who were male, older, and of lower socioeconomic statuses were more likely to report feeling unsafe at school. Additionally, they found “students’ perceptions of residing in a safer neighborhood and residence in a noncentral city metropolitan area, compared with a central city, decreased the odds of perceiving school environments as unsafe” (p. 428). Interestingly, Fisher, Mowen, and Boman (2018) concluded that students that attended schools with higher levels of safety measures (i.e. metal detectors, security cameras, and increased police presence on campus), reported “higher odds of being threatened with harm, and no difference in odds of being in a physical altercation” (p.1221). These factors, among others, should be taken into account when considering public policy changes that surround safety measures within the school setting.

Politics and Policies.

Barbieri and Connell (2015) conducted a content analysis of media coverage of school shootings that took place in the United States and Germany in order to gain an understanding of the role that media coverage and local and national concerns have in our understanding of and response to school shootings. They found that policy responses were the least discussed theme in U.S. news articles regarding mass school shootings. Discussions of gun availability, in the US, were more focused on understanding the effects of the cultural norms, where firearms possession and use was a regular part of everyday life, on mass school shootings. Of the articles that Barbieri and Connell (2015) found that discussed policy changes, only three touched on the necessity of anti-bullying programs, two recommended stricter age requirements for purchasing and consuming violent video games - or even a complete irradiation of the violent video games,
altogether. Below, I will discuss some policies that were brought about as a direct result of mass school shootings and acts of school violence.

**Zero Tolerance.** One particular policy that has been adopted by millions of schools across the country is the zero tolerance policy against bullying (Nickerson & Spears, 2007; Roberge, 2012; Skiba, 2000; Skiba & Peterson, 1999; Varjas et al., 2009). This policy is trademarked by bullying being “directly addressed once administrators or school interveners are made aware of the issue. The postulation is that students could refrain from engaging in bullying behaviors because they would purportedly be aware of the fact that they would automatically face severe sanctions” (Roberge, 2012, p. 2), like expulsion or legal ramifications. Varjas et al. (2009) argued that in a world that is changing drastically policies like the zero-tolerance policy, need to be reevaluated. They stated, “zero tolerance policies tend to focus on physical forms of bullying which may ignore other equally important forms of [bullying, like verbal, relational, and cyber]” (p. 173) and they suggested, “the need for school involve families and community members in developing effective strategies for intervening with this form of bullying and victimization” (p. 173). Furthermore, researchers have pointed out studies indicate that zero tolerance policies are supposed to be uniformly enforced, but males, minority students, and those from low socioeconomic backgrounds are affected more by zero tolerance policies and are more likely to be referred for more disciplinary actions as a result of their suspensions (Morrison & D'Incau, 1997; Nickerson & Spears, 2007; Skiba, Peterson, & Williams, 1997; Tobin & Sugai, 1999). This plays a major role in the school to prison pipeline, that funnels juvenile offenders into the justice system for frivolous offenses committed in a school setting (Pigott, Stearns, & Khey, 2018).
**Gun laws.** Remarkably, in the content analysis that Barbieri and Connell (2015) conducted, all of the media outlets alluded to the need for stricter gun laws in order to limit the accessibility of the deadly weapons used in mass school shootings. An outcry for stricter gun laws in the United States is a common petition voiced as a result from moral panic. Guis (2018) found that “weapons bans reduced the number of school shooting victims by 54.4%. All other gun control laws (concealed carry laws, private sale background checks and Federal dealer background checks) had no statistically significant effects on school shootings” (p. 320) and concluded, “it is unclear if gun control is the most appropriate policy to use to reduce the number school shooting victims” (p.320). Making a valuable point, Arnold (2015), noted, “evil will find a way” (p.504) regardless of gun regulation policies like the *Gun-Free School Zones Act of 1990* and the *Gun Free Schools Act of 1994* (Katsiyannis, Whitford, & Ennis, 2018). He explained, “gun-free school zones only create laws that law-abiding citizens keep. As noted in the selected case studies, all of the school shooters violated the law and most of them, if not all, probably knew that they were violating the law” (p.504). Arguments that legislative efforts should focus on creating school safety plans, hiring and training of armed SROs, and finding funding for schools that need help with creating safer school environments are also suggestions brought about by researchers (Elliot, 2015). It has been suggested that policy responses to mass school shootings do not get to the root cause of the epidemic: the environments in which mass school shootings are fostered (Keehn & Boyles, 2015). Despite the changes in policy that policymakers have enacted, evidence that mass school shootings are happening more frequently as time goes on is still present (Arnold, 2015; Ash & Sanders, 2018; Baird, Roellke, & Zeifman, 2017; Beland & Kim, 2016; De Apodaca, Brighton, Perkins, Jackson, & Steege, 2012; Duplechain & Morris,

**Conceptual Framework: Focusing Events and Public Policy Making**

In his book, *Public Policymaking*, Anderson (2014) lays out the life cycle of public policy. He dictates that sustained and effective public policy is put into place by a distinctive process that is outlined in Table 2-1. The first stage of this process is defining the policy agenda for change. This is identifying the social issue that needs to be addressed. The second step involved formulating a resolution to address the social issue. Next, promoting the policy resolution and gaining public and political favor is imperative to adapting public policy. Once you’ve received approval and the policy is going to be endorsed by the government, the policy moves into the implementation stage. Once the policy is implemented for a relatively significant amount of time, it needs to be evaluated for the effectiveness at addressing the social agenda that it was created to address. This is done by conducting empirical research and drawing conclusions from data driven analysis relating to the efficacy of the policy and identifying barriers that prevented the policy from being successful, or factors that correlated its success.

**Table 2-1**

*The Life Cycle of Public Policy*

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
<th>Stage 4</th>
<th>Stage 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agenda</td>
<td>Formulation</td>
<td>Adaption</td>
<td>Implementation</td>
<td>Evaluation</td>
</tr>
<tr>
<td>Defining the problems that receive attention from the public and governing bodies in order to consider action.</td>
<td>Creating a proposed solution for addressing the public concern/agenda.</td>
<td>Gaining approval from governing bodies for proposed solution and a consensus to endorse and implement solution.</td>
<td>Putting the solution into action.</td>
<td>Determining if the policy was effective by data driven analysis. Identifying reasons for success and/or barriers to effectiveness.</td>
</tr>
</tbody>
</table>
Focusing Events. Meaningful public policy cannot be fashioned without an agenda being set. These agendas are set based on increased attention that has been brought to a particular issue as a result of a focusing event that pressures policy makers to implement policy responses to elevate the possibility of another focusing even occurring again (Birkland, 1997; 1998; Birkland & Lawrence, 2009; Lawrence & Birkland, 2004). Focusing events are defined as events that are “sudden; relatively uncommon; can be reasonably defined as harmful or revealing the possibility of potentially greater future harms; has harms that are concentrated in a particular geographical area or community of interest; and that is known to policy makers and the public simultaneously” (Birkland, 1998, p. 54). Additionally, they are marked by media coverage, visibility, number of victims, and the randomness/inability to predict events (Barbieri and Connell, 2015; Birkland, 1997; 1998). Barbieri and Connell (2015) posit that mass school shootings could be categorized as focusing events.

Public Policy Responses to Moral Panic as it relates to School Practices in Florida

On February 14, 2018, Marjory Stoneman Douglas High School in Parkland, Florida was the site of a mass school shooting where 17 people were killed, and another 17 victims were wounded. Plakon (2020) illustrates the events of that day,

At 2:21 p.m. on February 14, 2018, a gunman, armed with an AR-15 and numerous magazines, entered Marjory Stoneman Douglas High School after an Uber driver dropped him off. The gunman was “wearing a gas mask and equipped with smoke grenades, which he used to set off a fire alarm ‘so kids would come pouring out of classrooms and into the hall.’” Shortly after the gunman entered the building, he opened fire at students

fleeing from what they thought was a fire drill. He advanced through three floors, firing at students and faculty inside classrooms and across hallways. After committing this massacre, the gunman disarmed himself and fled along with other students, attempting to camouflage himself from investigators. After leaving the school, the gunman visited Walmart and purchased a drink at Subway inside the store and then went to McDonalds before deputies apprehended him a couple miles from campus. (p.679-80)

This is the focusing event that instigated widespread moral panic and kicked off the most recent series of public policy changes aimed at curbing mass school shootings and school security and safety. Following the Parkland mass school shooting, there have been countless responses to the moral panic that have ensued in Florida, attempting to change public policies regarding school safety.

Two weeks following the Parkland shooting, Astor, Bear, Bradshaw, Cornell, Espelage, Flannery, ... and Weist (2018) headed the Interdisciplinary Group on Preventing School and Community Violence and drafted the *Call for Action to Prevent Gun Violence in the United States of America*. They reason that many current policies revolving around school safety are aimed at reaction as opposed to prevention, and that a public health approach to prevention must be implemented to help curb gun violence and school shootings in America (Astor et al., 2018; Katsiyannis, Whitford, & Ennis, 2018). They suggest a three-tiered approach to prevention that include:

(1) Universal approaches promoting safety and well-being for everyone;

- A national requirement for all schools to assess school climate and maintain physically and emotionally safe conditions and positive school environments that
protect all students and adults from bullying, discrimination, harassment, and assault;

- A ban on assault-style weapons, high-capacity ammunition clips, and products that modify semi-automatic firearms to enable them to function like automatic firearms. (p.1)

(2) Practices for reducing risk and promoting protective factors for persons experiencing difficulties

- Adequate staffing (such as counselors, psychiatrists, psychologists, and social workers) of coordinated school- and community-based mental health services for individuals with risk factors for violence, recognizing that violence is not intrinsically a product of mental illness;

- Reform of school discipline to reduce exclusionary practices and foster positive social, behavioral, emotional, and academic success for students;

- Universal background checks to screen out violent offenders, persons who have been hospitalized for violence towards self or others, and persons on no-fly, terrorist watch lists. (p.1)

(3) Interventions for individuals where violence is present or appears imminent.

- A national program to train and maintain school- and community-based threat assessment teams that include mental health and law enforcement partners. Threat assessment programs should include practical channels of communication for persons to report potential threats as well as interventions to resolve conflicts and assist troubled individuals;
- Removal of legal barriers to sharing safety-related information among educational, mental health, and law enforcement agencies in cases where a person has threatened violence;
- Laws establishing Gun Violence Protection Orders that allow courts to issue time-limited restraining orders requiring that firearms be recovered by law enforcement when there is evidence that an individual is planning to carry out acts against others or against themselves. (p.1)

They concluded their call to action by demanding, “federal and state authorities to take immediate action enact these proposals and provide adequate resources for effective implementation” (p.1) and called on the help of parents and youth to advocate for these changes. A subset of youth that deeply heeded this call to action were the student survivors of the Parkland shooting (Abowitz & Mamlok, 2020; Cohn & Teruelle, 2019; Plakon, 2020).

**The Student Voice and Informing Meaningful Public Policies in Florida.** Research has placed a significant emphasis on the role that student opinions when reforming school policies plays. For example, Noguera (2007) conducted a study of 150, 10th grade students, across 10 public high schools situated in Boston with the intend to use the information gathered to, “illuminate how student perspectives on their school experiences can be used to strengthen reform efforts” (p. 205). The study yielded many reasonable solutions and insights to issues plaguing their schools from the student perspectives. In relation to these suggestions he argued,

These ideas might not seem particularly innovative or out of the ordinary, but the fact that they come from students themselves is important. Students recognize the need for safety and order in school, and many of the students interviewed wanted to see disruptive students dealt with in a firm manner. However, it is rare for a school to seek student input
on matters related to discipline even though their buy-in is essential if schools are to succeed in creating an environment that is conducive to learning. (p.208)

Following the study he reasoned, “students may very well have ideas and insights that adults are not privy to, and that could prove to be very helpful to improving schools if adults were willing to listen” (p. 209), which is the reason student opinions should be considered when revamping educational policies.

A group of student survivors of the Parkland school shooting set into motion a pivotal, and unprecedented, series of policy changes concerning school safety in the state of Florida (Abowitz & Mamlok, 2020; Cohn & Teruelle, 2019; Plakon, 2020). The student led, #NeverAgainMSD, movement became a “powerful agentic force” (Abowitz & Mamlok, 2020, p. 553) that created a sense of community and urgency to protect the “the Child, whose innocence solicits our defense” (Cohn & Teruelle, 2019, p.2). According to Abowitz and Mamlok (2020), these survivors took their experience and “moved from trauma, to anger, to indignation, to strategy” (p. 552). Their movement was “characterized by transactional communications and positionalities in the civic, cultural, and political realms” (p. 553) and took “a powerful stance that used political emotion to feed political action” (p.553). Within a span of two weeks following the Parkland shooting, students banded together to organize trips to the state and country capitals to protest and demand sweeping bans on assault weapons, they met with the speaker of the United States House of Representatives to discuss these policies, and they initiated a full-on social media battle with National Rifle Association via Twitter (Abowitz & Mamlok, 2020). As a result of activism, such as this, Florida Governor, Rick Scott, signed into law Senate Bill 7026—also known as the Marjory Stoneman Douglas High School Public Safety Act (2018) - on March 9, 2018 (Plakon, 2020).
The Marjory Stoneman Douglas High School Public Safety Act (2018). Under this legislation, gun control laws were implemented that raised the legal age to purchase firearms was raised from 18 to 21, created a three day waiting period in order to receive a newly purchased firearms, banned the sales of instruments used to alter weapons, and prohibits persons who are declared mentally unfit by the courts to purchase firearms (Bill, F. S. 7026, 2018). Further, the Office of Safe Schools in the Florida Department of Education was created to “Serve as a central repository for best practices, training standards, and compliance oversight for school safety and security, including prevention, intervention, and emergency preparedness” (Bill, F. S. 7026, 2018, p. 35).

At a school-based level, this legislation requires that every school in the state have a school safety officer on campus and requires mental health and community mental health services to be provided to students. Further, SB 7026 requires that all schools conduct regular active shooter drills, and that school based leadership teams creation and implement a threat assessment team to assess behavior of students that may be deemed dangerous. Moreover, the law compels all Florida state schools to undergo a security assessment and enact any changes that are recommended through these evaluations. The law also made way for the creation and execution of the “FortifyFL” app that serves as an anonymous suspicious activity reporting tool on mobile devices. Finally, SB 7026 laid out an allocation plan for funds to make these policy changes. In the 2019-2020 school year $176,979,265 were spent statewide across schools to carry out changes and school hardening measures (Florida Department of Education, 2020).

The life cycle of public policy and SB 7026. Circling back to Anderson’s (2014) lifecycle of public policy, we can conclude by the discussion above that the State of Florida and their schools have been through the first four stages of the public policy lifecycle. Currently, key
players in Florida’s school safety policies have found themselves in stage five of the public policy lifecycle - evaluation. The purpose of this study is to evaluate the impacts of current public policies implemented in the state of Florida as a direct result of the Marjory Stone Douglas High School mass school shooting from the perspectives of the students these policies effect.

Summary

The discussion above is an overview of some of the major points that were set into motion by the activism spearheaded by the Parkland survivors. In addition to Marjory Stone Douglas High School being, “located in a state which, in 2010, passed intellects the Sandra Day O’Connor Civics Education Act, which mandated a state assessment in civics” (Abowitz & Mamlok, 2020, p.551), Abowitz & Mamlok (2020) attribute the students’ success to students attending a “well-resourced public school with high graduation rates; it has exceptional co-curricular programs, challenging courses, and committed teachers” (p. 551). They insinuate that these students were given an advantage in being able to make a difference because of their education and socioeconomic backgrounds.

Regardless of the exact reason for the students’ success, it is important to understand what fueled the drive to advocate for the changes in Florida. Cohn and Teruelle (2019) studied the effectiveness of the student-led initiative for safer schools in Florida by the survivors of the Marjorie Stoneman Douglas High School shooting. They stated

In short, few were expecting that the Valentine’s Day 2018 school shooting at Marjory Stoneman Douglas High School in Parkland, Florida would provide any new occasion for “changing the political calculus.” Yet in the weeks after the shooting occurred, a group of students who survived the attack launched an ambitious social media campaign that has
arguably already succeeded where so many others have failed: they have brought the issue of gun control back on the national political agenda, and have challenged politicians, policy makers, and even the NRA in their battle to address gun violence in America. Even more unexpectedly, they accomplished this by defining themselves as, and speaking from the position of, “children.” (p.2) … one of the surviving students [from the Marjorie Stoneman Douglas High School shooting], David Hogg, emphatically stated: “We’re children. You guys, like, are the adults” (p. 2-3) … By contrast, the phrase “we’re children” announced something quite different. In the act of speaking, by speaking as one of the “children,” Hogg and his fellow student activists called into existence a new collective agent, claiming the right to speak for themselves, preempting representation, even taking a step beyond representation into autonomous action. (p. 4)

We are charged with protecting our children and yet it took our children to point out the adults have gotten used to saying “it is what it is,” but if us students have learned anything, it's that if you don’t study, you will fail. And in this case if you actively do nothing, people continually end up dead, so it’s time to start doing something. (p. 5)

Duplechain and Morris (2014) believe that parents need to be the primary source of pressure when it comes to demanding a response from educators and policymakers to do whatever is necessary to improve the safety and security of their schools. I argue that students should be the primary force, as they are the ones that are at the metaphorical frontlines of this battle.

Although there exists a body of literature about mass school shootings, the research is limited despite evidence that mass school shootings are on the rise, these events are still fairly infrequent and too complex to be able to give a simple answer as to why mass school shootings occur (Baird et al., 2017; Gereluk, Donlevy, & Thompson, 2015; Guis, 2018). Adding to the
complication and complexity of conducting research on mass school shootings, a universal term and an agreed upon definition of what mass school shootings are does not exist. This can lead to a confusion about reporting and skewed data related to mass school shootings. Further, public opinion shaped by the media tends to paint a story and a picture of mass school shootings, and the shooters, that may not be one hundred percent factual. The majority of the research conducted considers preventative measures and the effectiveness of these measures. Moreover, researchers have outlined risks factors that are deemed applicable to profiling a mass school shooter but are not always consistent in predicting the likelihood of a person becoming a perpetrator of mass school shootings. For example, Baird et al. (2017) explained,

Despite recent research efforts, mass school shootings remain one of the least understood types of school violence...while factors such as mental illness, access to firearms, prior victimization, and rejection are consistently cited as perpetrator characteristics, many school-aged children possess some, or even all, of these risk factors and yet only an infinitesimal percentage of these students commit acts of mass violence. (p. 262)

They concluded, “due to the complexity of the personal, environmental, and situational differences that accompany acts of mass violence, at present no combination of risk factors can definitively predict whether a violent incident will actually occur” (p. 262). Further, Ferguson et al. (2011) warned that research efforts that lead down a dead-end path, to an answer that does not exist,

are arguably a double advantage for governments, giving politicians the near-unassailable veneer of being ‘concerned for children’ while simultaneously expanding government power and influence. They also may result in major deviations and distractions that can set back understanding of complex phenomena for years. As one such example,
understanding of school shooters became largely mired in a debate over video game violence that only now is beginning to be unraveled as a spectacular wrong turn. (p. 145)

Our children’s safety has become nothing more than a stunt for public officials to market their ineffective security theaters. They pull at the heart strings of the public with the perception that they care about the wellbeing of our students, with little, to no, results.

Most researchers are attempting to answer the question “why do mass school shootings occur?” when researching mass school shootings. As simple as this question seems, it has yet to be scientifically proven that any specific factor has a causal relationship with the occurrences of mass school shootings. The truth is, that the causes of school shootings are complex, and a number of factors must come together to create the perfect storm for a mass school shooting to be conceived (Ash & Saunders, 2018; Ferguson et al., 2011; Keehn & Boyles, 2015; Klein, 2006). Schools are becoming, “a symbol of what is wrong in one’s life. School shootings, if anything, relate to agency” (Kiilakoski & Oksanen, 2011, p. 265). Kiilakoski & Oksanen (2011) advocated the “need to understand that school shootings are embedded in social practices in schools and in society. School shooters were angry at the entire environment of the school” (p.265).

While a body of literature relating to mass school shootings does exist, the research is fairly limited. Previous research on mass school shootings primarily consists of scholarly literature reviews and data analysis of mass media coverage, school safety plans, legislative efforts, gun control, risk factors, and psychological profiles of school shooters. Very few pieces were focused on understanding the perspectives of those effected by incidents of mass school shootings, and none were from the viewpoint of students. Jonson (2017) found that current or former students perpetrate the majority of school shootings, so it is difficult to understand how
there currently exists a gap in the literature that explores the causes of mass school shootings and best practices for preventative measures from the student perspective. It is imperative to understand mass school shootings and safety measures to prevent mass school shootings from the student perspective. Noguera (2007) points out,

> Given how poorly so many past reforms in our nation’s high schools have fared with respect to delivering lasting improvements in student achievement and overall quality, it certainly could not hurt to solicit student perspectives on what they believe might be done to make their schools better from a variety of perspectives. Of course, a willingness to listen to students implies that adults actually want to hear what students think, that they respect them enough to listen and learn, and that they will be open to suggestions they might make. (p.209)

By understanding the perceived lived experiences of high school students in relation to current security measures that have been implemented by schools across the nation, we can possibly formulate a way to make meaningful public policy for our students. Without this insight, we cannot create safer schools for them. As a jumping off point, school and district leadership must posit the question, “how have the changes in school security measures, in light of the increased occurrences of mass school shootings, impact your experience as a student?” and use this in planning for the future of education.
CHAPTER 3: METHODOLOGY

Introduction

Occurrences of mass school shootings are increasing at an alarming rate in our nation (Arnold, 2015; Ash & Sanders, 2018; Baird, Roellke, & Zeifman, 2017; Beland & Kim, 2016; De Apodaca, Brighton, Perkins, Jackson, & Steege, 2012; Duplechain & Morris, 2016; Elliott, 2015; Gerard, Whitefield, Porther, & Browne, 2016; Haan & Mays, 2013; Jonson, 2017). Schools, once deemed as generally safe and sacred environments, are shifting to become metaphorical and literal battlegrounds (Jonson, 2017). Mass school shootings have a significantly negative impact on students’ academic success, in particular on their performance on standardized tests in English and math, with a decrease in 9th grade enrollment noticed in the aftermath of mass school shooting (Beland & Kim, 2016). Inarguably, mass school shootings do not just effect those that are within the school at the time, they also affect the entire community in which schools are situated, as well as create panic and fear among the masses across the country and globe (Jonson, 2017). Due to the influence and far reach that these horrific events foster, it is crucial we understand not only the factors that contribute to school shootings but the youth-informed perspectives of the impact of school shootings.

Currently, there exists a limited body of information relating to the causes of mass school shootings and best practices for safety measures being implemented in schools - more than likely due to the complexity, infrequency, and inconsistency of each individual school shooting (Baird et al., 2017; Gereluk, Donlevy, & Thompson, 2015; Guis, 2018). The studies that do exist largely consist of literature reviews and statistical data and/or reports commissioned by government agencies (Mazmanyan, 2020). As current or former students perpetrate the majority of school shootings (Jonson, 2017), it is perplexing that there currently exists a gap in the literature that
explores the perceived safety of students in light of the increase in danger and mass school shootings with from the student standpoint.

Using Q Methodology, this study will examine the viewpoints of recent high school graduates on the effect of school safety measures on their school experiences considering the increased threat of mass school shootings. The purpose of this study is to explore the perceptions of recent high school graduates regarding Pk-12 school safety measures that have been implemented in schools, considering the increased occurrences of mass school shootings, in hopes to add to the body of empirical literature that presently exists. But more importantly, it is my hopes that that the information obtained from this study will factor into informing meaningful policies fashioned by educational leaders and future educational legislation to create school climates in which students feel safe.

Drawing on the ideas of humanistic psychologist Abraham Maslow’s *Hierarchy of Needs* (1968), facilitating school environments where students feel safe is extremely important. If a student does not have fulfillment in the basic need to feel safe, this may increase the risk of that student not being able to self-actualize and perform their best in the academic setting. Moreover, a student’s sense of safety within the school setting may directly correlate with academic achievement, school truancy, avoidance of certain areas within the school, students carrying weapons to school with them for protection, career aspirations of students, and more importantly student mental and physical wellbeing (Beland & Kim, 2016; Lenzi et al., 2017). This chapter includes a brief outline of the history and process of Q Methodology and how it pertains to the study at hand.

**Defining Key Concepts in Q-Methodology.** Q-Methodology as an inquiry approach that is used less frequently and more unfamiliar than standard education research, may present
challenges for meaning-making and interpretation of concepts that are unique to the Q process. Table A1 (Appendix A) outlines important terms and concepts that are used exclusively in Q-methodological research that may prove helpful to readers who are not accustomed with Q-methodology (Ramlo, 2015).

**Methodology**

Conceived in 1935, by William Stephenson, Q Methodology is a systematic study of the subjective perceptions of study participants that incorporates aspects of qualitative and quantitative research methods (Amin, 2000; Bashatah, 2016; Brown, 1996; Chen, Ng, Chua, Loo, Wong, & Chow, 2018; Corr, 2001; Donner, 2001; McKeown & Thomas, 2013; Militello, Jansen, & Tonissen, 2016; Ramlo, 2015; Van Exel & De Graaf, 2005; Watts & Stenner, 2005; Watts & Stenner, 2012). Q-Methodology is particularly usefully in exploring the “the viewpoints of a specific people, groups, or the viewpoints they play within a specific institution” (Watts & Stenner, 2015, p.67). Donner (2001) explains, “Q-methodology allows a researcher to explore a complex problem from a subject’s point of view” (p.24). During the process of a Q methodological study, participants are invited to reflect on a series of statements related to a selected topic. Participants are then instructed to sort the series of statements, prioritizing the statements on a certain topic according to their own personal beliefs and schemas. Studies that utilize Q-methodology typically are executed in five distinct steps: developing the Q-set, participant selection, Q-sorting, data analysis, and interpretation of factor analysis (Amin, 2000; Bashatah, 2016; Brown, 1996; McKeown & Thomas, 2013; Militello et al., 2016; Ramlo, 2015; Van Exel & De Graaf, 2005; Watts & Stenner, 2012).

**Implementation of Q-methodology.** As per McKeown and Thomas (2013), the first step to conducting a study implementing Q Methodology is to sample an issue to create a concourse.
A concourse is a vast and all encompassing “random collection of self-referable statements” (Stephenson, 1993, p.5) gathered regarding a topic or question. Ramlo (2015) notes a concourse, “most often consists of a broad range of communications on the topic in the form of statements” (p.75). Further Amin (2000) explains, “the literal meaning [of the word concourse] is gathering or collection. It is the initial collection of opinions gathered from variety of sources on the topic of interest” (p. 414). The concourse can be gathered from conversations, research, literature, media outlets, and observations (Militello et al., 2016; Stephenson, 1993; Van Exel & De Graaf, 2005). The concourse is comparable to the population from a standard qualitative or quantitative research study (Watts and Stenner, 2012; McKeown & Thomas, 2013) and must be reduced to a Q-set, which is similar to the sample. The Q-set is often referred to as a Q-Sample.

The purpose of the Q-set is to, “provide a comprehensive but manageable representation of the concourse from which it was taken” (McKeown & Thomas, 2013, p. 23). Once you’ve developed the concourse, a subset of the concourse will be chosen to become the Q-set. The Q-set is sifted from the larger concourse using a sorting method that usually will make sure one statement is included from every viewpoint, all redundant statements are formed into one concise one, and can include approximately 40 to 50 statements (Van Exel & De Graaf, 2005). Militello et al. (2016) and Watts and Stenner (2012) warn that framing Q-set statements negatively can cause confusion for participants and should be avoided whenever possible. Because there is no prescribed method to sorting through a Q-set, different researchers can create varying Q-sets from the same concourse. This isn’t as problematic as it seems because, first, the structure chosen is only a logical construct used by the investigator. Whatever the starting point, the aim is always to arrive at a Q-set that is representative of the wide range of existing opinions about the topic. Second, irrespective of the structure and of
what the researcher considers a balanced set of statements, eventually it is the subject [participants] that gives meaning to the statements by sorting them. (Van Exel & De Graaf, 2005, p.5)

Following the creation of the Q-set, a P-set must be selected—this is the group of participants that will partake in your study. Often in the case of Q Methodology, the number of participants is not as important as the number of statements in the Q-set but should still be chosen with the topic of the study in mind. For instance, in the current study I am surveying student perceptions, so I would not want to allow a teacher to be a participant in my study. The idea is we want to include enough participants in the P-set in order to be able to draw conclusions from their opinions (Militello et al., 2016). Watts & Stenner (2012) write that Q methodology is not aimed at, “generalizing to a population of people” (p.72) and “generally aims only to establish the existence of particular viewpoints and therefore to understand, explicate and compare them” (p.72). This is meaningful in the sense that a large number of participants is not necessary to execute the purpose of this type of methodological study.

Step four to any Q methodological study is distributing that Q-set to the P-set and having the participants rank order statements (the sorting of the Q-set) according to the condition of instruction. This is called Q-sorting. It is important to note that you can have participants perform the Q-sort electronically or by physically sorting statements on to a pre-planned grid (McKeown & Thomas, 2013). Finally, the information yielded from the Q-sort is analyzed and used to draw conclusions about a particular groups’ perception on a topic. When the participants have concluded their Qsorts, the researcher must analyze the data using specialized computer software that is programmed to run focused factor analyses for Q-Methodology. Once data analysis is complete, the researcher can then interpret the data and findings (McKeown &
Reliability and Validity. Ramlo (2015) explains, “validity and reliability of the [Q] sorts are not a consideration in Q like they are for the analysis of responses that stem from Likert-type instruments” (p.77). Stemming from the fact that Q-Methodology is rooted in subjectivity and self-reported perceptions, “there is no external standard against which they can be compared to estimate their ‘validity’” (McKeown & Thomas, 2013, p.64). Further, Watts and Stenner (2012) argue, “one can, however, demonstrate that Q methodology delivers what it claims to deliver, i.e. the viewpoints of its participants, and hence that it is valid” (p.66). Other justification for reliability and validity within Q-Methodology clarify, "in Q methodology, the content validity of each statement is derived from the rank order in which it is placed and its vicinity to other statements, as determined by the participant. The face validity of Q-methodology relates to the degree of satisfaction a participant feels about how accurately his or her ranking of the statements reflects personal feelings” (Corr, 2001, p. 295-6).

Strength and Limitations of Q-Methodology. Q-Methodology, as with all other mainstream research methods, has strengths and weaknesses. For example, some advantages to using Q-Methodology are it does not require a large number of participants, the data analysis portion is almost instantaneous, it can be relatively inexpensive, it allows for researchers to understand the perspective of a particular group of people by forcing choice to reveal true perception data, it opens the floor to discussion about individual viewpoints that can foster a deep respect towards participants, and it is helpful in approaching research involving sensitive topics (Bashatah, 2016; Donner, 2001). Aside from the fact that the collection of concourse and Q-set data can be time consuming, some disadvantages to Q-Methodology manifest in the argument regarding reliability and validity (Bashatah, 2016; Donner, 2001; Watts & Stenner,
Justification for the Present Study. Watts and Stenner (2012) caution, “before you commit to a Q methodological study, ask yourself if the viewpoints of your proposed participants really matter, and can make a difference, in the current context” (p.67). It is my firm belief that exploring the perceptions of students regarding safety measures in school, not only matters, but also is essential to informing meaningful policies and best practices within the school context. Noguera (2007) argues, students recognize the need for safety and order in school….however, it is rare for a school to seek student input on matters related to discipline even though their buy-in is essential if schools are to succeed in creating an environment that is conducive to learning. (p.208)

He reasoned, “students may very well have ideas and insights that adults are not privy to, and that could prove to be very helpful to improving schools if adults were willing to listen” (p. 209). The student perspective on the effectiveness of school safety measures is fundamental in determining if there needs to be any changes to current policy and can lead to insight regarding what those changes should be.

Furthermore, through a review of the literature, it has been concluded that current or former students commit most mass school shootings (Jonson, 2017). If students are the individuals committing the crimes, are the victims of these crimes, and are the ones being affected by the policies lawmakers enact as a result of the crimes, why has no research been conducted to inquire about the perspectives of students regarding the threat of mass school shootings in their schools? As noted, by Brown (2006) and Militello et al. (2016), an advantage to implementing Q-Methodological studies is that fact that they are particularly well suited for
exploring sensitive topics and/or perspective of marginalized populations. In the present study, the students serve as a marginalized population providing their perceptions on an extremely sensitive topic.

The Current Study

Data Collection: Developing the Concourse and Q-Set. A concourse or concourse of communication is a collection of statements, viewpoints, thoughts, etc. that emerge from a selected topic. The concourse for this study was developed using statements from an online survey (Appendix E) that was distributed to respondents that represented the study’s target population. Upon receipt of IRB approval on March 7, 2022 (Appendix D), a series of emails were sent to professors and department heads at institutions of higher education in Northeast Florida, asking for their assistance in recruiting participants to collect statements to develop the concourse. These emails were sent between March 11, 2022 and March 21, 2022 (Appendix B, C). Additionally, the information that was collected during this portion of the study can be found in Appendix E. Data collection for phase one of the study concluded on April 19, 2022, when the data set reached the saturation point, and yielded a final count of 95 statements that were collected from 16 different respondents.

To condense the concourse data into a Q-Set, a structured sampling was conducted because it allowed for the researcher to systematically compose a comprehensive sample, as opposed to the unstructured sampling that can foster doubts regarding representativeness. To accomplish said task, principles of factorial experimentation (Fisher, 1960) were applied to the concourse data using an inductive design that arises from the natural pattern of statements that were collected (McKeown & Thomas, 2013), and the Q-Set was sifted down from 95 statements to 37 statements. To finalize the Q-set, the 95 statements that were collected in phase one of the
research were numbered and printed out. These print outs were then laid out on a table and the researcher and methodologist analyzed the statements and sorted them into subcategories that shared similar themes. From this, statements that were similar were combined into one individual statement that encompassed the ideas of the other statements and some were eliminated altogether based on the relevance of the statement to the condition of instruction. For example, concourse statements 14, 42, 57, and 91 were all condensed into Q-set statement 6. A visualization of how this this can be found below Table 3-1. Additionally, a comprehensive list of the initial 95 statements that were first collected and finalized list of Q-set statements can be found in Appendix F. The statements that are highlighted are the statements that became the final Q-set. The numbers in parenthesis, next to the highlighted Q-set statement, denote the numbers of the original concourse statements that were incorporated into forming the final Q-set statement.

Table 3-1

<table>
<thead>
<tr>
<th>Original Statements</th>
<th>Q-Set Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. Break in instruction</td>
<td>6. Drills disrupted the learning that took place during our classes. Some teachers viewed it like this too.</td>
</tr>
<tr>
<td>42. Some teachers saw it as a disruption to their class.</td>
<td></td>
</tr>
<tr>
<td>57. Disruptions to the class</td>
<td></td>
</tr>
<tr>
<td>91. It disrupted class time whenever there was a drill</td>
<td></td>
</tr>
</tbody>
</table>

The P-Set. Participants for this study were recruited using a strategic sampling method. Due to the nature of Q-Methodology exploring the first-person perspectives of a target group, a purposeful and snowballing sampling approach will be used to invite participants to the study. This decision was made in large part due to the fact it would be counterintuitive to use a random
sampling technique as no guarantee could be made that the participants would have membership status in the intended target group for this study.

The P-set was comprised of recent high school graduates that were 18 years or older and are current undergraduates at an institution of higher education. The study was limited to recent high school graduates because of the recency of their completion of their K-12 experiences, during an era of increased mass school shootings, gave them the ability to reflect on their experiences as students and articulate it in a clear and meaningful manner, in comparison with actual high school students. These efforts yielded 61 participants.

**Q-Sorting and Data Analysis.** An electronic Q-sort was developed in accordance with the conditions of instruction using the Online Q Method Software (Lutfallah & Buchanan, 2019). Over the course of November 2022, a second series of emails were sent to professors and department heads at institutions of higher education in Northeast Florida asking for their assistance in recruiting participants to participate in sorting the Q-set. In addition to this, the Q-sort was distributed to students at the University of North Florida via an emailed link to their school email address (Appendix G).

Keeping the condition of instruction in mind, participants were asked to sort a series of statements into a forced choice frequency distribution chart called a Q-grid. The condition of instruction for this study was as follows, “Based on the increase of mass school shootings, like Uvalde, Marjory stone, etc., many schools have had a change in their school safety measures, called school hardening. These safety measures can impact student experiences. How have the changes in school safety measures impacted your school experience?” An example of the forced choice frequency distribution table that was used for this study can be found below in Table 3-2. This Q-sort grid accommodated 37 statements, in which participants were asked to rank the
statements based on their experiences and then provided optional follow up statements in relation to their +4 and –4 statement choices.

**Table 3-2**

*Example of a Forced Choice Frequency Distribution Table Used in Q-Methodology*

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most Unlike My Experience</td>
<td>Somewhere in the middle or Unsure</td>
<td>Most Unlike My Experience</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Q-sort took participants an average of 13 and a half minutes to complete. Participants were given a two-week window to complete the sort. At the closure of the study window, data was analyzed and downloaded to report in Chapter 4 from the Online Q Method Software (Lutfallah & Buchanan, 2019). The data analysis techniques that were utilized to obtain the results that will be reported in chapter four was a five-factor extraction with a varimax factor rotation that was implemented using principal component analysis for conventionality’s sake (Watts & Stenner, 2005; 2012; McKeown & Thomas, 2013). The data and results from the data analysis were downloaded and saved to a secure and encrypted drive to ensure confidentiality.

**Summary**

Chapter three provided background information on the history and terminology of Q-Methodology and the justification for using this methodology for the study at hand. Further, this chapter outlined the procedures, research design, data collection, and data analysis of the study at hand. Results from the information collected above will be discussed, in depth, in Chapter Four.
CHAPTER 4: RESULTS

Introduction

The purpose of this study is to explore the subjective perceptions of recent high school graduates regarding Pk-12 school safety measures that have been implemented in schools in light of the increased occurrences of mass school shootings. Participants were asked to sort a series of statements with the following statement in mind: “Based on the increase of mass school shootings, like Uvalde, Marjory Stone, etc., many schools have had a change in their school safety measures, called school hardening. These safety measures can impact student experiences. How have the changes in school safety measures impacted your school experience?”

An electronic Q-sort was developed in accordance with the conditions of instruction using the Online QMethod Software (Lutfallah & Buchanan, 2019) and over the course of November 2022, participants were asked to sort a series of statements into a forced choice frequency distribution chart called a Q-grid, keeping the condition of instruction for this study in mind. At the conclusion of the sort, participants were then asked to provide optional follow up information in relation to their +4 and −4 statement choices.

P-Set Demographics

The P-set was comprised of recent high school graduates that were 18 years or older and are current undergraduates at an institution of higher education. The study was limited to recent high school graduates because of the recency of their completion of their K-12 experiences, during an era of increased mass school shootings, gave them the ability to reflect on their experiences as students and articulate it in a clear and meaningful manner, in comparison with actual high school students. Recruitment efforts yielded 61 participants that completed the sort. This is about a 15% completion rate, as a total of 414 emails that were read.
The P-set consisted of 32 females, 19 males, and 10 non-binary and/or transgendered participants. They self-reported their race/ethnic backgrounds, and the results are as follows: 67% of the participants (n=41) self-identified as being White/Caucasian, five participants identified as Hispanic/Latinx, five more participants noted that they were Multiracial, four participants identified as being from Asian descent, three reported as being Black/ African American, two participants identified as Middle Eastern, and one participant reported being South Asian. All but one of the participants graduated high school between the years of 2019 and 2022, with the remaining participant noting that they graduated in 2013. Almost 97% of the participants reported being enrolled in an institution of post-secondary learning as full-time students.

When describing the type of high schools each of the participants attended three reported attending a charter school, one stated they attended a military school and a military base overseas, three attended a standard private school, six attended a religious private school, 46 reported attended a public school and two reported attended high school virtually. Further, 57% of the participants (n = 35) attended a school in a suburban setting, 17 participants attended high schools in an urban setting, seven reported attended a high school in a rural setting, and two students stated that they attended high school in a setting as “other.” Finally, 80% of the participants graduated from a high school in the state of Florida, two participants each graduating from high schools in Georgia and Pennsylvania, and one participant each reported graduated from Massachusetts, Maryland, Michigan, New Jersey, Ohio, Oklahoma, Washington, and a US territory overseas.

**P-Set Exposure to Violence.** Participants were asked to note their experiences with violence in three different settings. Of the 61 participants, 14 reported experiencing violence
outside of a school setting, 17 reported experienced violence within a school setting, and two reported having experienced some form of school shooting firsthand.

**P-Set agreement on threats of school violence and effectiveness of safety measures.**

Participants were also asked to rank their agreement to two statements on a 5-point Likert scale form. The first statement participants were asked to weigh in on was, “School violence is a significant threat to students today.” Almost 93% of participants agreed that school violence was a significant threat to students in our current society. Furthermore, when posed the statement, “safety measures in my high school were reasonable and effective,” only 27 participants agreed to this statement. Further clarification regarding how participants responded to these two statements can be found below in *Tables 4-1 and 4-2.*

**Table 4-1**

*P-Set Agreement to Safety Measures in My High School Were Reasonable and Effective Statement.*

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>n 7</td>
<td>20</td>
<td>11</td>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td>% 11.47541</td>
<td>32.786885</td>
<td>18.032787</td>
<td>29.50819672</td>
<td>8.1967213</td>
</tr>
</tbody>
</table>

**Table 4-2**

*P-Set Agreement to School Violence is a Significant Threat to Students Today Statement.*

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>n 43</td>
<td>14</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>% 70.491803</td>
<td>22.95082</td>
<td>1.6393443</td>
<td>1.6393443</td>
<td>3.27868852</td>
</tr>
</tbody>
</table>
Factor Extraction and Rotation

The first step in order to analyze the data generated from the completed Q-sorts is to extract factors from the complete data set. Factors are clusters of Q-sorts that are grouped together based on similar perspectives dictated by how similarly the participants arranged their individual sorts. Although there is no standard practice that determines how many factors to extract, researchers suggest using factor analysis techniques such as eigenvalues, explained variances, and correlations to help guide researchers in determining which factors to extract for further examination. (Brown, 1980; McKeown & Thomas, 2013; Watts & Stenner, 2012).

Once the number of factors to extract are determined, the researcher then performs a factor rotation to maximize the number of sorts that load as significant to each factor. This is important because the more sorts that load as significant to each factor, the better the chances are that the factor encompasses the shared viewpoint of those that participated in the study. At the close of the study window, data was analyzed and downloaded from the online QMethod Software (Lutfallah & Buchanan, 2019). According to the QMethod app developers, “QMethod Software analyzes data using an R based analysis engine to provide real time reports as participants submit their QSorts. The in-app analyses allows researchers to choose the number of factors they would like to analyze (i.e., from 2–7), the type of rotation (i.e., varimax, quartimax, promax, oblimin, or cluster), (Ahmed, Bryant, Tizro & Shickle, 2012; Barker, 2008; Brown, 1996) and the type of correlation (i.e., Pearson, Kendall, or Spearman) (Alberts & Ankenmann, 2001; Brown, 1996)” (Lutfallah & Buchanan, 2019, p. 418). The data analysis techniques that were utilized to obtain the results for this study were a five-factor extraction with a varimax factor rotation that was implemented using principal component analysis, for conventionality’s sake (Watts & Stenner, 2005; 2012; McKeown & Thomas, 2013).
Factor Correlation Between Factor Scores. Factor correlations between factor scores are the extent to which each factor shares characteristics with another factor. In a well designed study, the hope is that each factor presents varying perspectives and that the correlations between the factors are low. It is imperative to have low factor correlation scores between factors because if two factors have a correlation score that is high it means that those two factors are just variations of the same perspective, rather than being two varying profiles (Watts & Stenner, 2012). Per the QMethod data outputs, Table 4-3 delineates the factor correlation scores for the five factors that will be analyzed below. There were no correlation scores that were high enough to flag concern about the need to reconsider including the factors in the final set of perspectives to be interpreted later in this chapter.

Table 4-3

Factor Correlation Between Factor Scores for Current Study

<table>
<thead>
<tr>
<th></th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
<th>Factor 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1</td>
<td>1</td>
<td>-0.28581</td>
<td>0.11158</td>
<td>0.0645</td>
<td>-0.03166</td>
</tr>
<tr>
<td>Factor 2</td>
<td>-0.28581</td>
<td>1</td>
<td>0.28949</td>
<td>-0.08511</td>
<td>0.23344</td>
</tr>
<tr>
<td>Factor 3</td>
<td>0.11158</td>
<td>0.28949</td>
<td>1</td>
<td>0.06474</td>
<td>0.3044</td>
</tr>
<tr>
<td>Factor 4</td>
<td>0.0645</td>
<td>-0.08511</td>
<td>0.06474</td>
<td>1</td>
<td>0.01006</td>
</tr>
<tr>
<td>Factor 5</td>
<td>-0.03166</td>
<td>0.23344</td>
<td>0.3044</td>
<td>0.01006</td>
<td>1</td>
</tr>
</tbody>
</table>

Eigenvalues, Scree Plot and Explained Variance. Eigenvalues are another way to determine how many factors to include in a Q-study. This theory dictates that any factor with an eigenvalue over one should be considered for further analysis (Brown, 1980). The statistical norm for the QMethod software is to pull eight factors, and upon review of these eight factors, all eight factors had eigenvalues of over one and were deemed as warranting further investigation to include them into the final factor output. Table 4-4 includes a complete list of eigenvalues for review. Another point of information that is commonly used to visualize which factors should be
included in a final factor interpretation is a scree plot. A scree plot can show a natural break in the factors is a Scree Plot. This can help researchers determine how many factors to include in a study. Table 4-4 is the scree plot that the QMethod software generated using the eigenvalues for each factor.

Watts and Stenner (2012) advise that a factors explained variance is another data point to analyze when trying to determine what factors should be included in the final factor analysis. They outline that factors with a cumulative percent of explained variance scores that were considered acceptable generally range from 35% - 40%. Table 4-5 shows that all five factors, when added together, equal 55% of the explained variance and that the current study meets the explained variance threshold that was suggested above to be included in the final factor analysis.

Table 4-4

Scree Plot and Factor Rotations Using Eigenvalues

Table 4-5

- Selected 5 factors for rotation
- Varimax rotation applied
Eigenvalues, Percent of Explained Variance and Cumulative Percentages of Explained Variances for Factors 1-5

<table>
<thead>
<tr>
<th></th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
<th>Factor 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eigenvalues</td>
<td>11.54243</td>
<td>9.36205</td>
<td>5.11687</td>
<td>4.9217</td>
<td>2.78002</td>
</tr>
<tr>
<td>% Explained Variance</td>
<td>19</td>
<td>15</td>
<td>8</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Cumulative % Expln Var</td>
<td>19</td>
<td>34</td>
<td>43</td>
<td>51</td>
<td>55</td>
</tr>
</tbody>
</table>

**Factor Characteristics.** Table 4-6 is a data output that the QMethod software generated. This table delineates the number of sorts that loaded as significant to each factor. Additionally, the table denotes that the average reliability coefficient for all five factors was 0.8. This means that there is an 80% chance that the participants that loaded significantly to the factors would sort their statements in the same fashion, if asked to do so again. The composite reliability for each factor is also logged below. The composite reliability is a statistic that dictates the internal reliability of each factor. This number is directly linked to the number or sorts that loaded as significant to each factor. In other words, the more sorts that load to a factor, the higher the internal reliability of the factor will be. (Brown, 1980; Watts & Stenner, 2012).

**Table 4-6**

**Factor Characteristics**

<table>
<thead>
<tr>
<th></th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
<th>Factor 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Defining Variables</td>
<td>13</td>
<td>10</td>
<td>14</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Avg. Rel. Coef.</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
</tr>
<tr>
<td>Composite Reliability</td>
<td>0.98113</td>
<td>0.97561</td>
<td>0.98246</td>
<td>0.96</td>
<td>0.92308</td>
</tr>
<tr>
<td>S.E of Factor Z-Scores</td>
<td>0.13736</td>
<td>0.15617</td>
<td>0.13245</td>
<td>0.2</td>
<td>0.27735</td>
</tr>
</tbody>
</table>

At the conclusion of the review of the data analysis completed by the QMethod software, the data produced five factor profiles, with 7 distinct perspectives, as factors 4 and 5 were both bipolar factors, that warranted further exploration. These factors and perspectives, along with
other essential statistical information that was deducted from this study will be discussed in-depth below. *Table 7* is a comprehensive breakdown of which participants loaded as significant to each factor that will be interpreted below. An asterisk after the participant number notes a negative load for significance in relation to the factor the participant is listed below. A separate viewpoint will be analyzed for these viewpoints in their respective sections. Additionally, *Table 4-8*, is a list of the Q Sample statements that participants were asked to sort and how each of those statements was ranked within each factor profile. This information will be important in assisting with formulating each factor’s interpretation.

**Table 4-7**

*Significant Participant Loads Broken Down by Factors*

<table>
<thead>
<tr>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
<th>Factor 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>2</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>21</td>
<td>8</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>6</td>
<td>22</td>
<td>9</td>
<td>38</td>
<td>52*</td>
</tr>
<tr>
<td>11</td>
<td>27</td>
<td>14</td>
<td>42*</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>28</td>
<td>18</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>33</td>
<td>23</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>34</td>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>40</td>
<td>32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>44</td>
<td>39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>58</td>
<td>46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>56</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: A participant number that is marked with an asterisk denotes a negative load to that particular factor.*

**Table 4-8**

*Q Sample Statements and Factor Array Rankings*
<table>
<thead>
<tr>
<th>S#</th>
<th>Statement</th>
<th>F1</th>
<th>F2</th>
<th>F3</th>
<th>F4</th>
<th>F5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I noticed big changes in my school as a result of efforts to make it more safe.</td>
<td>-3</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>-2</td>
</tr>
<tr>
<td>2</td>
<td>During after school events, like rehearsals and sports practices, I felt less safe than during the normal school day.</td>
<td>-4</td>
<td>0</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>I didn’t want to do it, but I knew we had to learn the routine to plan for if something were to occur.</td>
<td>-3</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Some teachers took it more seriously and were by the book, while some teachers didn’t do anything at all.</td>
<td>-4</td>
<td>2</td>
<td>2</td>
<td>-4</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>I noticed the school put a lot of effort into making the drills feel real.</td>
<td>-3</td>
<td>2</td>
<td>-3</td>
<td>-1</td>
<td>-1</td>
</tr>
<tr>
<td>6</td>
<td>Drills disrupted the learning that took place during our classes. Some teachers viewed it like this too.</td>
<td>-2</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>8. Drills weren’t always executed the way they were designed to be. It depended on the teacher.</td>
<td>-1</td>
<td>2</td>
<td>3</td>
<td>-4</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>I noticed no impact on culture or climate of school except for how schools were visibly “hardened” (Eg. metal detectors and police officers).</td>
<td>-3</td>
<td>4</td>
<td>0</td>
<td>-2</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>The constant presence and reminders that the school has been “hardened” made me numb.</td>
<td>-2</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>10</td>
<td>This topic was so uncomfortable that even my friends and I never even discussed it.</td>
<td>-4</td>
<td>-1</td>
<td>-2</td>
<td>-2</td>
<td>3</td>
</tr>
<tr>
<td>11</td>
<td>It kind of became normalized the more we engaged in routine code red drills.</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>12</td>
<td>Everybody seemed to share the belief that we had to prepare for a threat, so the risk wasn’t ignored or downplayed.</td>
<td>-2</td>
<td>3</td>
<td>-3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>Certain safety measures, like long lines due to security searches after a recent school shooting elsewhere, would make me nervous for the rest of the day.</td>
<td>-1</td>
<td>-2</td>
<td>-4</td>
<td>-1</td>
<td>2</td>
</tr>
<tr>
<td>14</td>
<td>Teachers went through motions during the drills, but very few were comfortable with talking about them before or after.</td>
<td>-1</td>
<td>0</td>
<td>1</td>
<td>-2</td>
<td>-2</td>
</tr>
<tr>
<td>15</td>
<td>I tried to limit my thinking of the threat of violence by blocking it out any time other than code red drills.</td>
<td>-1</td>
<td>0</td>
<td>-1</td>
<td>-1</td>
<td>-4</td>
</tr>
</tbody>
</table>
16  The increase in school safety measures felt like an annoyance.  
17  I questioned the benefit of many of the precautions and drills.  
18  After a drill, teachers would abruptly move back to business even though it was difficult for us to regain focus on schoolwork.  
19  No one in the school seemed to recognize these drills were traumatic for students.  
20  The unknown and uncertainty during code red drills were difficult for me.  
21  Safety measures made me feel more on edge throughout the school year, adding stress to my year.  
22  No adults in our lives, in school or out, seemed to acknowledge or try to help us process the emotional impact of code red drills.  
23  I worried that teacher biases could become dangerous during the stressful situations school safety drills created.  
24  I felt lucky to have a couple of good teachers who cared for us during the drills by providing calming support.  
25  When we weren’t sure they were drills, it could be terrifying. Some people broke down emotionally.  
26  The emotional impact of school safety drills (e.g. code red) stayed with me long after the drill was over. They were traumatizing.  
27  The increase in school security (Eg. locked doors, covered windows, etc.) made me feel trapped or caged in at times.  
28  I didn’t like being constantly reminded that schools were unsafe.  
29  When I knew other students were upset or worried I didn’t know how to help them.  
30  The cookie-cutter training and education about safety measures that were provided by my school district were so vague. I questioned their usefulness.

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>The increase in school safety measures felt like an annoyance.</td>
<td>-2</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>17</td>
<td>I questioned the benefit of many of the precautions and drills.</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>18</td>
<td>After a drill, teachers would abruptly move back to business</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>even though it was difficult for us to regain focus on schoolwork.</td>
<td></td>
<td></td>
<td></td>
<td>-1</td>
</tr>
<tr>
<td>19</td>
<td>No one in the school seemed to recognize these drills were</td>
<td>1</td>
<td>-3</td>
<td>-1</td>
<td>-1</td>
</tr>
<tr>
<td></td>
<td>traumatic for students.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>The unknown and uncertainty during code red drills were</td>
<td>0</td>
<td>-2</td>
<td>-3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>difficult for me.</td>
<td></td>
<td></td>
<td></td>
<td>-3</td>
</tr>
<tr>
<td>21</td>
<td>Safety measures made me feel more on edge throughout the</td>
<td>0</td>
<td>-3</td>
<td>-3</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>school year, adding stress to my year.</td>
<td></td>
<td></td>
<td></td>
<td>-3</td>
</tr>
<tr>
<td>22</td>
<td>No adults in our lives, in school or out, seemed to acknowledge</td>
<td>1</td>
<td>-2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or try to help us process the emotional impact of code red</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>drills.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>I worried that teacher biases could become dangerous during</td>
<td>0</td>
<td>-2</td>
<td>-1</td>
<td>-3</td>
</tr>
<tr>
<td></td>
<td>the stressful situations school safety drills created.</td>
<td></td>
<td></td>
<td></td>
<td>-1</td>
</tr>
<tr>
<td>24</td>
<td>I felt lucky to have a couple of good teachers who cared for</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>us during the drills by providing calming support.</td>
<td></td>
<td></td>
<td></td>
<td>-4</td>
</tr>
<tr>
<td>25</td>
<td>When we weren’t sure they were drills, it could be terrifying.</td>
<td>1</td>
<td>-1</td>
<td>-4</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Some people broke down emotionally.</td>
<td></td>
<td></td>
<td></td>
<td>-2</td>
</tr>
<tr>
<td>26</td>
<td>The emotional impact of school safety drills (e.g. code red)</td>
<td>-1</td>
<td>-4</td>
<td>-4</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>stayed with me long after the drill was over. They were</td>
<td></td>
<td></td>
<td></td>
<td>-3</td>
</tr>
<tr>
<td></td>
<td>traumatizing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>The increase in school security (Eg. locked doors, covered</td>
<td>1</td>
<td>-4</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>windows, etc.) made me feel trapped or caged in at times.</td>
<td></td>
<td></td>
<td></td>
<td>-4</td>
</tr>
<tr>
<td>28</td>
<td>I didn’t like being constantly reminded that schools were</td>
<td>3</td>
<td>-1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>unsafe.</td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>29</td>
<td>When I knew other students were upset or worried I didn’t</td>
<td>1</td>
<td>0</td>
<td>-1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>know how to help them.</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>30</td>
<td>The cookie-cutter training and education about safety measures</td>
<td>2</td>
<td>-3</td>
<td>4</td>
<td>-3</td>
</tr>
<tr>
<td></td>
<td>that were provided by my school district were so vague. I</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>questioned their usefulness.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Over the years it seemed like safety measures became more relaxed and our school was being too casual about the risk of threats.

Students didn’t take it as serious as I know we probably should have—kind of like how we walk instead of run during fire drills, because it’s not like we were in any immediate danger.

I felt our school safety drills (code red) were disorganized and chaotic. I was never sure what to do, where I should go, or where I should be in the school.

The drills felt useless and stupid. They would require us to hide instead of teaching us how to fight for our lives when it came down to it.

I knew school safety drills were important for protecting our safety. I viewed them as a set of skills that needed to be learned.

I felt my school needed even more security than it had. The more we practiced drills and precautions, the more I felt a shooting was inevitable.

Factor Interpretations

**Factor 1: Dissatisfied with Implementation and Want Changes.** Of the 61 participants, 13 loaded as statistically significant to Factor 1. Of these 13 participants, six identified as White/Caucasian, three as Hispanic/Latinx, two as Black/African American, one as Middle Eastern, and one as South Asian. In terms of gender, eight of the Factor 1 participants identified as female, three as males, and two as non-binary. The Factor 1 participants completed high school relatively recently with three graduating in 2019, one in 2020, four in 2021, and five finishing in 2022. Geographically, all but one participant graduated from a Florida high school. Eight students attended school situated in urban settings, three in suburban locales, and two attended schools in a rural area. Nine of the Factor 1 participants attended public high schools and one student each attended a private, religious private, virtual, or charter school.
When asked about their specific experiences with violence, three reported they had experienced some type of violence outside of a school setting, 12 experienced violence while in high school, and one participant reported firsthand experience with some form of a school shooting. Finally, all the participants surveyed agree that school violence is a significant threat to students in school today, but only five of these students agreed that their high schools had reasonable and effective security measures.

*The Factor 1 Profile.* Supported by the factor array rankings for Factor 1 in *Table 4-8,* Appendix I, and the post sort statements, the participants who loaded significantly to Factor 1, emphasized a general dissatisfaction with the implementation of security measures that were in place during their time in high school. They were not afraid to talk about the possibility of a potential school shooting amongst their peers (s10; -4) and were very vocal in their post sort comments about how they would improve the current security measures in place. They held no ill will towards the practice of “Code Red” active shooter drills. In fact, Factor 1 students wished that Code Red drills were implemented with more fidelity. Participants of this profile perceived a general decreased sense of urgency as mandatory drills became a joke to the students, staff, and faculty within the building.

These participants stressed that, in addition to the current safety measures that were in place, they would prefer more precautions. There seemed to be an underlying sense of disdain towards the school system for employing, what to them were, haphazard safety measures, such as hiding, instead of teaching them how to be on the offensive were a threat to become a reality. Many of the participants mentioned in their post sort comments that they wished their schools had taught them how to fight back instead of being proverbial and figurative “sitting ducks.” For
example, Participant 20 stated, “we are taught how to hide for our lives but not fight for our lives.”

Participants who loaded significantly on Factor 1 believed that during drills students did not take the circumstances seriously (s32; +4). These students had a sense that the more that Code Red safety drills were practiced, the likelihood of a school shooting was inescapable (s37; +4). This group observed that the required drills were disorganized, chaotic, and led to a lot of confusion for the participants while the drills were underway (s33; +3). Participant 1 elaborated on the effects of the poorly implemented drills as they wrote, “they announced the code drill over the intercom, but you could hardly ever hear if it was drill or not… I remember my freshman year they forgot to announce it was a drill and the door wouldn’t shut correctly. So, me and another student held it shut until the drill was over. They made it feel like it was a self-fulfilling prophecy, an accident just waiting to happen.”

Emerging from the post sort comments was a common feeling of annoyance that no one was taking the drills seriously. Participant 54 detailed an instance of a school shooting realized that played out in their school in which they, “thought it was a drill because everyone was yelling over the speakers.” Once Participant 54 realized that this was a legitimate active shooter threat, they texted their parents that they loved them and they were alive at that very moment but, considering the circumstances, they didn’t know how long they would be.

Viewpoints shared among Factor 1 participants led to participants feeling like the drills were ‘one size fits all’ and useless, ergo not preparing the participants very well for a possible active shooter situation (s34, +3; s30, +2). Participant 31 wrote, “since many school shootings are perpetrated by current or former students, I figured hunkering down in classrooms would not matter. The shooter would know our procedure and break into the classroom through the door or
through the windows regardless of whether or not the lights were off.” This student further explained that the aura of indifference towards the safety drills was due to the fact that the students “knew that our drills would not seriously impede any shooter with any kind of plan whatsoever, so we were mostly just going through the motions rather than believing that any drills, weather drills included, would seriously increase our chances of living.”

Although these participants were unsatisfied with how poorly implemented and ineffective the skills training were for drills, they knew that these drills were an important set of skills that were paramount for their safety at school (s35, +2; s3, -3). This group of students shared a high regard for the purpose of the drills and a deep sense that a possible school shooting posed a very real threat. Participant 56 explained, “these are incredibly real-world situations and when we have to do them so regularly, we almost forget that someone very easily could walk onto our high school campus with the intent to kill as many people as possible. The way teachers and students handle these situations could quite literally mean life or death and I think it’s just become so normalized that it doesn’t feel real.” Mirroring these sentiments, Participant 50 wrote, “I have gun safety training, and I was always dead silent during the drills, but others sometimes laughed it off. I was trained with guns since I was about 7-8 years old. As I became more aware of the shootings, especially in Florida schools, I couldn't fire a gun anymore. I keep my phone constantly charged and with me because during a lock down if it was dead and I couldn't call my family. Living in Florida, I felt like going to school was putting my life on the line.”

**Factor 2: Safe and Sound.** Of the 61 participants, 10 individuals significantly loaded to Factor 2. Nine participants were of Caucasian descent, and one was of Asian origins. Four individuals identified as female and six identified as male. One student graduated high school in 2013, two in 2019, five in 2020, one in 2021, and one in 2022. Three students’ schools were in
an urban setting, six in a suburban area, and one was situated in a rural surrounding. Six participants attended public high schools, one graduated from a charter school, one attended a private school, another a private religious school, and the last participant attended a military school at a US military base overseas. Of the schools that were located in the United States, six were in Florida, one was in Georgia, one in Pennsylvania, and the last in Maryland.

All of the participants were currently enrolled in their post-secondary schools as full-time students. Four of the 10 Factor 2 participants indicated that they had experience some form of violence in a school setting, three indicated that they’ve experienced violence outside of a school setting and one student had personally experienced some form of a school shooting. When asked about their level of agreement with the statement, “school violence is significant threat to students today,” eight individuals agreed, one student somewhat disagreed, and one neither agreed nor disagreed with the statement. Additionally, when asked about their level of agreement to the statement, “the student safety measures in my high school were reasonable and effective”, eight participants agreed, one student somewhat disagreed, and one neither agreed nor disagreed with the statement.

**The Factor 2 Profile.** Upon review of the data from Factor 2 that can be found in Appendix J, the profile was characterized by an overall sense that the participants were genuinely satisfied with the security measures that were in place. They noticed changes within their respective school settings but were not alarmed by them. This group welcomed changes in security measures because it made them feel safe. One point that stood out, in comparison to the other factor profiles, was an emphasis placed on the way that their schools were built played and the presence of law enforcement on their campuses made them feel safe. Another feature that set this factor profile apart from others was the perceived sense of support by the adults in their
schools. This profile was put together with supporting evidence from the factor array rankings in Table 4-8 and the post sort statements.

Although participants that loaded as significant to Factor 2 did not enjoy participating in safety drills while in school, they appreciated them because they knew that drills were imperative to their safety within the school setting (s35; +4, s3; +4). In their post sort comments, Participant 27 wrote, “I very much understood the importance of the drills, as morbid as they may have been.” Participant 4, mirrored this sentiment by detailing, “the drills were boring and took up class time, but I knew I needed to know what to do in an emergency, just in case.” These participants also did not see many affects from the visible school hardening on their day to day learning environment (s8;+4), but when speaking about the importance of the safety drills, the participants that loaded as significant to Factor 2, also believed that their school had adequate security measures in place and these efforts were implemented with fidelity (s12;+3, s5; +2). They felt that everyone in their respective school settings were on board with the security measures, including the safety drills, that were implemented at their schools which made them feel prepared. Participant 27 mentioned, “we would do the drills and had security on campus, but it was never too intrusive,” and that they believed their “school security was good enough to deal with threats before they became too close.”

A distinguishing element of Factor 2 was the specific mention of how their schools were constructed. Participant 22 noted that “our high school campus was technically divided because one half was the old middle school (which was eventually relocated) and so the old middle school and old high school campuses were merged. In the middle of these two buildings was a long outdoor walk and a football field exposed to the public. We needed 10 minutes to walk between classes, so our SROs would park their cars in the middle of campus so we knew they
could protect us.” Additionally, Participant 27 mentioned, “it [the school] was a very open campus which in hindsight, definitely felt a little vulnerable.”

Another remarkable trait of Factor 2 was the appreciation of law enforcement on their school campuses. Participant 44 explained, “the most memorable experience was the change on campus that consisted of having a sheriff on campus during all school hours. This was the best possible thing the school could have done…I felt safer on campus because I knew that there were good guys with guns ready to protect us.” Further, Participant 22, detailed their experience with the law enforcement officers on their campus as, “in my high school, School Resource Officers (SROs) were part of our family and made a point to make students feel comfortable and included daily. Often times they would play funny music, poke fun at students on the microphone, etc. We were never searched without reason, forced to wear clear plastic backpacks, and no metal detectors were installed.” The noted appreciation towards law enforcement on campus may be explained by the fact that the majority of these participants were from a non-minority background.

Researchers have found a long-standing correlation between minority and non-white individuals holding negative views towards law enforcement officers. For example, Peck (2015) conducted a meta-analysis of 92 different scholarly articles and found “individuals who identified themselves as black, non-white, or minority were more likely to hold negative perceptions and attitudes toward the police compared to whites” (p.173). Further they noted that, “Hispanics tended to have more positive views of the police compared to blacks, yet more negative views than whites” (p.173). Regardless of the reasoning for this finding, these participants had no qualms with the security measures that were put in place within their school settings. Participant 22 summed up the specific viewpoint of Factor 2 in writing, “our teachers,
administration, and SROs took security and safety seriously without sacrificing our school pride, inclusivity, or sense of community/safety.”

**Factor 3: Numbed and Normalized.** Of the 61 participants, 14 individuals significantly loaded to Factor 3. Among this group, seven identified as Caucasian, three classified themselves as multiracial, two of Asian descent, and two from a Hispanic/Latinx background. Six individuals identified as female, five as male, and three as non-binary and/or transgendered. One student graduated high school in 2019, three in 2020, five in 2021, and five completed in 2022. Geographically, four students’ schools were in an urban setting, six suburban, and there were three that were situated in a rural surrounding, and the last categorized their school’s setting as other. Twelve participants attended public high schools, one attended a charter school, and the last a private religious school. All but two schools attended were in Florida, one was in Georgia, and another in New Jersey.

Every participant that significantly loaded to Factor 3 was enrolled in their post-secondary schools as full-time students at the time of the study. Two of the 14 participants indicated that they had experience some form of violence in high school, four cited experiencing violence outside of school settings, and no Factor 3 students had personally experienced any form of a school shooting. When asked about their level of agreement with the statement, “school violence is a significant threat to students today”, all but one of the participants agreed with the statement and one strongly disagreed. Finally, when asked about their level of agreement to the statement, “the student safety measures in my high school were reasonable and effective”, six participants disagreed with the statement, four students agreed with the assertion, and four neither agreed nor disagreed with the statement.
The Factor 3 Profile. Participant 9 unknowingly did an extraordinary job in summarizing the consensus of Factor 3, in recounting, “I watched as bullet-proof glass was placed at the front entrance of the school and felt nothing. If anything, it was a barrier that impeded me from getting to class some days because I then had to go through the office. I saw other hardening practices, school shooting posters, and other PSAs and I feel nothing towards it. It's numbing and normalized.” Upon review of the factor array data in Appendix K and other factor data, Factor 3’s significant loads emphasized being desensitized to the security measures that were implemented in their schools in response to the increase in school shootings (s25;-4, s13;-4, s30;+4) and preferring to learn to fight back rather than hide from a potential threat. Participant 18 remarked, “we became heavily desensitized to the idea of someone showing up with an AR or something.” Additionally, Participant 24 recollected, “I remember everyone at my school becoming incredibly desensitized to the drills. I remember being on lockdown for a shooter drill in 10th grade and joking with the rest of the class about how frequently we had to go through those drills. Nobody bothered to take cover. Everyone also treated drills as more of an annoyance than a potential threat, myself included.” Participant 57 attended a high school that had already had a school shooting take place prior to their enrollment there. Their older brother had been a student at the school during the incident, and elaborated,

despite the fact that the high school I went to already had had a shooting before I got there (it happened while my older brother went there), the principal, administration, and most teachers did not seem to care about safety or acknowledge that the safety drills were necessary. I remember receiving some vague instructions at the beginning of the year, and then every time we had a safety drill feeling confused about what I was supposed to be doing. Nobody really seemed to care. Sometimes I would have teachers that did not
participate in the drills at all and would ignore safety measures/continue instruction during the drills. We had more security on campus, but they did not make the students feel more safe. Drills were not taken seriously at all. I remember being amazed by the apathetic response after the Stoneman Douglas High shooting by my school. The principal called the new safety drill measures (we implemented the ALICE procedure after Parkland) “retarded.” It was all a tedious annoyance to them, so the students began to feel the same. We would frequently make jokes about which high school in the county would get shot up first, or how we would all die if our school was ever shot up because the leadership at our school was so bad. Looking back on it now, it is sad and scary to think about. We were just trying to cope with the overwhelming stress of it. Everyone I knew thought we were bound to have another shooting any day. We were all just waiting for it to happen.

Although the participants that loaded significantly to Factor 3 collectively described a sense of numbness and desensitization to the school safety measures that were put in place, they knew that they wanted better protective practices to take place. They were almost resigned to the fact that they felt they had no control in the matter because, as Participant 18 put it, “we just stopped caring…it just felt like pointless bureaucracy.”

Participants that loaded significantly to Factor 3 questioned the effectiveness of the security and safety drills that were put into place and felt that they were an inconvenience, rather than a useful tool to assist in their safety (s30;+4, s34;+4, s17;+4, s16;+3). Participant 18 reminisced, “the most significant things for us, in my school at least, were that it was an irritating policy that disrupted our day and wasted time.” Participant 23 explained that they felt that the safety drills were so misinformed that, “all of the ‘training’ felt useless in the case that a code red
really happened. If an active shooter came into my school and was firing live rounds, I already had a planned method to escaping.” Participant 24 also made the point that they weren’t, “sure how effective the drills would turn out to be,” because they knew other schools had “followed the same instructions and still suffered injuries or deaths.” This participant made the poignant argument that “if a school shooter were to turn up, it would probably be a student who was already familiar with the drills.” Participant 2 had very similar viewpoints and wrote, “I felt useless sitting and hiding when I knew that if a student was a shooter, they would know where the hiding spots were” and even pondered, “for as long as I remember it was ‘sit still and be quiet’- nothing about fighting.”

Many Factor 3 participants shared similar thoughts about learning the necessary skills to protect themselves. Participant 9 explained, “I didn't think that hiding would be that beneficial when it came down to it. If a shooter was to come through the doors and went to our school, they would know we'd all hide against the "safe wall", the wall closest to the door. And we'd be sitting ducks.” Similarly, Participant 14 echoed this sentiment with, “I questioned the benefit of the precautions and drills...there isn't any guarantee the shooter won't get into a classroom just cause of the drills we have. Realistically, if I'm in any situation like that ever, the last thing I want to do is be a sitting duck.” Participant 60 recalled how one of their teachers made a meaningful impact on their high school experience in relation to school safety measures and detailed, “I had this one teacher who made all the students feel safe and protected. She was younger and told us that if someone were to get past her, to fight with whatever we could use. She taught us survival and not just to sit and be quiet, she wanted us to know that we need to protect ourselves and our classmates, and I really appreciated her.”
**Factor 4: Confused, Fearful and Anxious.** Six individuals, out of 61, significantly loaded to Factor 4. Among this factor’s profile, five identified as Caucasian and one as multiracial. Two individuals identified as female, one as male, and three being non-binary and/or transgendered. One student graduated high school in 2019, one in 2020, two in 2021, and two in 2022. All six participants graduated from public high schools situated in suburban settings. Five students’ high schools are in Florida, and one was in the state of Washington.

Every participant that significantly loaded to Factor 4 was enrolled in their post-secondary schools as full-time students at the time of the study. One of the six participants that loaded as significant to Factor 4 indicated that they had experience some form of violence in a high school, none indicated that they previously experienced violence outside of a school setting and no students reported experiencing any form of a school shooting. However, one participant replied that they were unsure if they had experienced any form of a school shooting. When asked about their level of agreement with the statement, “school violence is significant threat to students today”, all the participants agreed with the statement. Finally, when asked about their level of agreement to the statement, “the student safety measures in my high school were reasonable and effective”, three participants disagreed with the statement and three students agreed with the assertion. Factor 4 had one participant that was a negative significant load to the Factor Profile. In instances where there is more than one individual that loads negatively on a factor, a secondary factor profile should be synthesized that represents the inverted perspective of the primary factor profile. In this case, because there was only one person who loaded negatively to Factor 4, there will not be a secondary profile developed. It should be noted that the participant who loaded negatively to this factor was the only participant that did not graduate
from a high school in the state of Florida and did not provide any post sort comments. Notably, this was the only participant to experience violence in and outside of a school setting.

**The Factor 4 Profile.** Derived from the factor sorts and the factor array data found in Appendix L, the participants that loaded significantly to Factor 4 noticed substantial increases in the security measures in their school in light of the amplified potential of danger in their schools (s1,+4). Participant 47 detailed, “they added metal detectors and started searching kids before they came in and they did random searches of classes. They covered every window too. They required see-through bags to make sure you couldn't smuggle anything in.” Participant 12 expresses similar changes in their school, and shared, “there were large changes in my school; randomized code reds every month, which were stressful because the intercom would come on and it would be a solid 15 seconds of loud warnings without any clarification if the threat was training or real. We also had locked doors, hall passes, occasional increased security on campus, and at the end of the year you weren't allowed to bring a backpack in the fear that someone would come on with a weapon.” These changes in security measures within the school setting had significant impacts on the participants that loaded significantly to Factor 4.

The Factor 4 profile is the first profile that emanated a sense of fear and anxiety when thinking about how the safety measures in their school effected their experiences (s20,+3; s27, +3; s25, +2). Participant 12 shared that the increased safety measures at their school made them feel “more on edge.” Participant 38 described a terrifying incident in which they were, “very unsure of whether or not it [a code red drill] was a real shooting and messaging my mom about that to let her know. When it was revealed that it was all a test, I was confused about why they would leave whether a life or death situation was happening ambiguous because it was not a fun time.” Given this information, it was a welcome surprise to feel that the participants that loaded
significantly to Factor 4 felt that their peers, teachers, school staff, and administration all took these security measures and drill very seriously (s31, -4). Further, they didn’t feel that as time went on the fidelity of implementation of the drills never wavered (s7, -4).

Despite feeling that the security measures in their schools were implemented with fidelity, unfortunately, the participants that loaded significantly to Factor 4 embodied a sense of disappointment with some of the safety measures. Participant 13 wrote, “the stress of the situation wasn't helped by knowing that if we were to actually have an active shooter threat, that the shooter would more likely than not be one of my peers, who would know the protocols.” Participant 12 echoed, “there was an ironic detachment that evolved over the four years of it. We did the drills, we had the security, and it becomes so routine that you don't even question it as something that shouldn't be happening.” Finally, Participant 38 described, “I also wasn't learning any skills on what to do during an active shooter situation other than just hide, I don't understand why they are going to make high schoolers do shooter drills if all they are going to do is disrupt their learning to scare them and make them hide for 15 minutes, that accomplishes nothing.” These Factor 4 related statements depict that most of this profile’s participants were not satisfied with the strategies that they had learned but were more confused by the strategies that were intended for students to learn how to protect themselves during a potential school shooting.

**Factor 5: Disrupted, Uncomfortable and Unsupported.** Of the 61 participants, three significantly loaded to Factor 5. Given that the bare minimum number of significant factor loadings for final interpretation is two, the Factor 5 participants’ profile is included as three participants significantly loaded for this shared viewpoint. Of the three participants, two identified as Caucasian females and one identified as a male of Middle Eastern decent. Two participants graduated high school in 2022, and the other in 2021. All three of the participants for
this factor graduated from schools in suburban settings. Two of the three schools were public high schools and the other was a private school. All of these high schools were in the state of Florida.

All Factor 5 participants were enrolled in their post-secondary schools as full-time students at the time of the study. One of the three participants indicated that they had experienced some form of violence in a high school, two participants indicated that they’ve experienced violence outside of a school setting and no students had personally experienced some form of a school shooting. When asked about their level of agreement with the statement, “school violence is significant threat to students today,” all three of the participants agreed with the statement. Finally, when asked about their level of agreement to the statement, “the student safety measures in my high school were reasonable and effective,” one participant disagreed with the statement, one student agreed with the assertion, and the last participant neither agreed nor disagreed with the statement. Factor 5 had one participant that was a negative significant load to the Factor Profile. In instances where there is more than one individual that load negatively on a factor, a secondary inverted factor profile would be created. However, due to the common knowledge rule to deem a profile as significant, at least two participants would need to significantly load as a negative load. In this instance, because there was only one person who loaded negatively to Factor 5, there will not be a secondary profile developed. Looking at the demographic information collected, the participant that loaded negatively to this factor was the only male and non-Caucasian participant in the set. Additionally, this participant did not leave any post sort comments to consider.

The Factor 5 Profile. According to the factor analysis and factor array data in Appendix M, the participants that loaded significantly to Factor 5 placed a heavy emphasis on the code red
drills being a disruption to their learning environments (s6; +4). Participant 15 detailed, “whenever we had a drill, it would pretty much be impossible to continue the assignment or class activity afterwards”…and continues, “during the drill, students would openly argue about the viability of actions we took for our ‘protection’. Sometimes the teachers would agree with us and openly admit what they and what we planned would be far more effective.” Further, they felt that the idea of school hardening was uncomfortable to talk about with their peers (s10; +3). When their peers became visibly upset due to the anxiety caused by the school hardening, they [Participants] didn’t know how to help them (s29; +3). This is significant as this is the first factor profile to emphasize feeling helpless to emotionally support their peers. Participant 15 described, “at the very beginning of freshman year, we had the school shooting presentation that contained actual clips or reenactments of shootings that had happened previously at another school. I was very paranoid those first years, always planning an escape route or sitting closest to the door in case of something happening.” This paranoia culminated in her creating a plan that involved, “situating myself closest to the door” so that she could “ambush the shooter before they fully entered the room.” As she was trained in martial arts, her line of thinking was, “if I could get to him first, maybe I could subdue him before he got to anyone inside.” Finally, a major point that was driven home by participants of the Factor 5 profile was that they did not feel supported by their teachers when it came to providing calming support to them (s24, -4).

Summary

In this study, Q Methodology was used to explore the perceptions of 61 participants regarding their experiences in their k12 settings considering the increase in school security measures due to an increase in mass school shootings. At the conclusion of the study and data analysis was performed, five distinct factor profiles emerged. Factor 1 was distinguished by
feelings of dissatisfaction, outrage, and a demand for changes. Factor 2 was set apart from the rest of the factor profiles as these participants felt safe in their school setting and felt that the safety measures were effective and serving their purpose. Factor 3 emphasized a sense of normalization to the security measures that lead to an emotional desensitization. Factor 4 was the profile that depicted a deep sense of fear and confusion which lead to an overwhelming anxiety. Finally, Factor 5 stressed the idea that school hardening measures were a disruption to their learning environments, that they were uncomfortable discussing issues of school safety in relation to school shootings and most importantly, they felt unsupported emotionally by their teachers.
CHAPTER 5: DISCUSSION

On a warm spring day, a few months after the Parkland mass school shooting, I was working with a student on selecting their electives for the following school year when our school went into lockdown. As per past code red drills, all the individuals in our school counseling suite bustled around the office, locking doors, and turning off lights as we huddled into the safe room with the students that were in the office. The students were sure that this lock down was a routine drill as, at first glance, it certainly could have been just a drill. But I knew better than that. In the back of my mind, I had an unrelenting notion and anxiety over the fact that our administrative team would have never called a code red drill in the middle of a lunch period. This meant that this code red was not a drill. This was real. I was terrified.

Thoughts began racing in my already chaotic, neurodivergent mind. Every single thought that bounced back and forth from the inner walls of my skull came rushing back to my daughter. See, I had given birth to a beautiful daughter a year and a half prior to this incident. I loved her so much and I wasn’t ready to have to leave her without a mother. But I knew that I would have laid down my life for the three students in that room with me that afternoon. That meant my own child would have been left alone. What would that do to her? Regardless of my panic, I put a brave face on for the students that were with me.

It took about 15 minutes for our walkie-talkie to giveaway my secret. Law enforcement, including aerial patrol and SWAT, arrived on scene, and were looking or an unidentified, and possibly armed male, in a black hoodie. It was then that the students realized this was a real threat and they were petrified. I quickly turned off the walkie-talkie and looked around at the six other grown adults and three students that were locked in a safe room with me. We had tears streaming down our faces and no cell reception or contact with the outside world. We were
trying to console each other as we sat in that cold dark room awaiting our possible demise. It was at the exact moment when I decided this wasn’t fair. Nothing about that entire experience was okay or fair. Sadly, situations like this were a deafening reality for many families.

Fortunately for me, and the other 1,500 individuals in our school, this story had a happy ending. This manhunt was sparked by an innocent 2nd grader at the neighboring elementary school who, during a school safety role-play presentation, mistook a parent volunteer for a potentially dangerous stranger. Regardless of the viability of the threat, the fear was real. The panic was real. And the crushing realization that I could have died that day had already been seared into my DNA. As an educator, I did not sign up to become a human shield for other people’s children, while leaving my own child orphaned. I wanted to be a school counselor to help students. And this dissertation is my attempt to help our students.

School violence and mass school shootings are increasing at an alarming rate in our nation (Arnold, 2015; Ash & Sanders, 2018; Baird, Roellke, & Zeifman, 2017; Beland & Kim, 2016; De Apodaca, Brighton, Perkins, Jackson, & Steege, 2012; Duplechain & Morris, 2016; Elliott, 2015; Gerard, Whitefield, Porther, & Browne, 2016; Haan & Mays, 2013; Jonson, 2017). Institutions of learning that were once deemed safe and sacred have turned into metaphorical and literal battlegrounds (Jonson, 2017). Students are reporting fear and anxiety at school when a routine fire drill occurs (Awada, Zhu, Becerik-Gerber, Lucas, & Southers, 2021; Huskey & Connell, 2020; Moore-Petinak, Waselewski, Patterson, & Chang, 2020; O’Neill, McCuddy, & Esbensen, 2019). Parents are concerned about their children’s safety while at school – often wondering if that day will be the last day that they send their child(ren) to school (Awada et al., 2021; Huskey & Connell, 2020; Moore-Petinak et al., 2020; O’Neill et al., 2019). Educators worry endlessly about the very real possibility that the Active Shooter Drills they are mandated
to participate in will become a reality; but more importantly, how they will protect their students even if that results in losing their own lives (Awada et al., 2021; Huskey & Connell, 2020; Moore-Petinak et al., 2020; O’Neill et al., 2019). Often, the families of school employees and first responders worry for their loved ones’ safety while performing their job duties, as well (Awada et al., 2021; Huskey & Connell, 2020; Moore-Petinak et al., 2020; O’Neill et al., 2019). Mass school shootings do not just affect those that are within the school at the time, they affect the entire community in which they are nestled, creating panic and fear among the masses across the country and globe (Jonson, 2017). Due to the influence and far reach that these increasingly frequent and horrific events foster in American schools, it is crucial to understand not only the factors contributing to school shootings but the subjective perspectives of youth that are at the center of such tragedies.

Currently, there exists a limited body of information relating to the causes of mass school shootings and best practices for prevention of these incidences - more than likely due to the complexity, infrequency, and inconsistency of each individual school shooting (Baird et al., 2017; Gereluk, Donlevy, & Thompson, 2015; Guis, 2018). The studies that do exist, largely consist of inconclusive literature reviews and statistical data and/or reports commissioned by government agencies (Mazmanyan, 2020). As current or former students perpetrate most school shootings (Jonson, 2017), it is perplexing that there currently exists a gap in the literature that explores the perspectives of students about the causes of mass school shootings and best practices for preventative measures.

While a body of literature relating to mass school shootings does exist, the research is limited. Previous research on mass school shootings primarily consists of scholarly literature reviews and data analysis of mass media coverage, school safety plans, legislative efforts, gun
control, risk factors, and psychological profiles of school shooters. Very few pieces were focused on understanding the perspectives of those affected by incidents of mass school shootings, and none were from the viewpoint of students. Jonson (2017) found that current or former students perpetrate most school shootings, so it is difficult to understand how there currently exists a gap in the literature that explores the causes of mass school shootings and best practices for preventative measures from the student perspective. It is imperative to understand mass school shootings and safety measures from the student perspective to help mitigate and reduce the likelihood of mass school shootings. Noguera (2007) points out,

> Given how poorly so many past reforms in our nation’s high schools have fared with respect to delivering lasting improvements in student achievement and overall quality, it certainly could not hurt to solicit student perspectives on what they believe might be done to make their schools better from a variety of perspectives. Of course, a willingness to listen to students implies that adults actually want to hear what students think, that they respect them enough to listen and learn, and that they will be open to suggestions they might make. (p.209)

By understanding the perceived lived experiences of high school students in relation to current security measures that have been implemented by schools across the nation, we can possibly formulate a way to make meaningful public policy for our students. Attempts to create safer schools for students without youth-informed insights about sense of safety relative to school shootings is a missed opportunity for education leaders and school policy makers. As a jumping off point, school and district leadership must posit the question, “how have the changes in school security measures, in light of the increased occurrences of mass school shootings, impact your experience as a student?” and use this in planning for the future of education.
Using Q-Methodology and an electronic Q-sort to gather data from 61 participants, this research study aimed to explore the perceptions of recent high school graduates regarding how their experience as a student was impacted by the changes in school safety measures considering the increased occurrences of mass school shootings. Five distinct factor profiles emerged from the data analysis that took place. A visual representation of these factor profiles can be found in Table 5-1. In the sections below and comparison of study results and literature review findings will be discussed, as well as implications for future research.

Table 5-1

Q Study Results: Factor Profiles

<table>
<thead>
<tr>
<th>Factor Number and Description</th>
<th>Factor Characteristics</th>
</tr>
</thead>
</table>
| 1. Dissatisfied with Implementation and Want Changes | • General dissatisfaction with school security measures.  
• Not afraid to talk about the possibility of a potential school shooting amongst their peers.  
• Vocal about how they would improve the current security measures in place.  
• Wished that Code Red drills were implemented with more fidelity.  
• Perceived a decreased sense of urgency as mandatory drills became a joke to the students, staff, and faculty within the building.  
• In addition to the current safety measures that were in place, there was preference for more precautions.  
• Sense of disdain towards the school system for employing haphazard safety measures  
• Wanted to have been taught how to fight back instead of hiding.  
• Felt drills were an important set of skills that were paramount for their safety at school |
| 2. Safe and Sound | • Genuinely satisfied with the security measures that were in place.  
• Noticed changes within their respective school settings but were not alarmed by them.  
• Welcomed changes in security measures because it made them feel safe.  
• Emphasis placed on the way that their schools were built. |
1. Safety and Security

- the presence of law enforcement on their campuses made them feel safe.
- Perceived sense of support by the adults in their schools.
- Did not enjoy participating in safety drills while in school but knew that drills were imperative to their safety within the school setting.

2. Not Enjoying Safety Drills

- Did not enjoy participating in safety drills while in school but knew that drills were imperative to their safety within the school setting.

3. Numb and Normalized

- Desensitized to the security measures.
- Preferred to learn to fight back rather than hide.
- Questioned the effectiveness of the security and safety drills that were put into place.
- Felt security and safety drills were an inconvenience, rather than a useful tool to assist in their safety.
- Resigned to the fact they had no control over what happened in terms of school hardening because it felt too bureaucratic.

4. Confused, Fearful and Anxious

- Noticed substantial increases in the security measures in their school due to the amplified potential of danger in their schools.
- Emanated a sense of fear and anxiety when thinking about how the safety measures in their school effected their experiences.
- Felt that their peers, teachers, school staff, and administration all took these security measures and drill very seriously.
- Felt that as time went on the fidelity of implementation of the drills never wavered.
- Expressed a sense of disappointment with some of the safety measures.
- Confused with the logistics and reasoning behind the strategies that they had learned to protect themselves.

5. Disrupted, Uncomfortable and Unsupported.

- Heavy emphasis on the code red drills being a disruption to their learning environments.
- The idea of school hardening was uncomfortable to talk about with their peers.
- When their peers became visibly upset, due to the anxiety caused by the school hardening, they didn’t know how to help.
- Did not feel supported by their teachers when it came to providing calming support to them.

Discussion

Occurrences of mass school shootings are at an all-time high (Arnold, 2015; Ash & Sanders, 2018; Baird et al., 2017; Beland & Kim, 2016; Bump, 2018; De Apodaca et al., 2012; Duplechain & Morris, 2016; Elliott, 2015; Gerard et al., 2016; Haan & Mays, 2013; Jonson, 2017; Riedman & O’Neill, 2021). Due to the increase in mass school shootings many schools
have undergone school hardening campaigns in which security measures are increased. The increases in school security measures considering the increased occurrences of mass school shootings have been found to increase anxiety and fear in students (APA, 2018; 2019). This directly affects students’ perceived safety within the school setting.

**Perceived safety.** According to the Canterbury District Health Board’s Wellbeing index (2021), Perceived safety is an “individuals’ perceptions of safety involves generalized judgements about the chance of injury or loss” (p.1). Perceptions of safety can be affected by “direct experience of harm” (p.1) and/or the “fear of harm” (p.1) but are “particularly sensitive to the physical environment (e.g., one’s home vs. public places) because these physical environmental factors are tangible to residents” (p.1). Meaning that an individual’s perceived safety is strongly influenced by their physical surroundings and their lived experiences. This holds true for students and their perceived safety in the school setting.

The perceived sense of safety within a school’s environment is widely accepted as a major factor impacting school climate (Bosworth, Ford, & Hernandaz, 2011; Elsass et al., 2016; Farinas, 2019; Goldweber, et al., 2013; Hong & Eamon, 2012; Hong, Voisin, & Lee, 2016; Jonson, 2017; Langman, 2017b; Lenzi, Sharkey, Furlong, Mayworm, Hunnicutt, & Vieno, 2017; Mitchell, Kensler, & Tschannen-Moran, 2018; Varjas, Henrich, & Meyers, 2009; Williams, Schneider, Worern, & Langhinrichsen-Rohling, 2018). With the threat of mass school shootings at an all-time high, there has been a significant increase in research surrounding school and public policy addressing school climate and safety. From this research many states and school districts have implemented changes to their school’s security measures to increase safety, within the school setting, from threats of active shooters. These efforts are often referred to as school “hardening” and can involve many changes including installing metal detectors at school
entrances, security cameras outside and inside the school building, and the presences of law enforcement in school buildings (Cuellar, Elswick, & Theriot, 2018).

Researchers have found that school hardening efforts can be ineffective. For instance, Price and Khubchandani (2019) conducted a systematic literature review of 630 publications that were ciphered down to 89 articles. They concluded,

Hundreds of millions of dollars have been spent to harden schools. None of the currently employed school firearm violence prevention methods have empirical evidence to show that they actually diminish firearm violence in schools. To the extent that schools adopt ineffective firearm violence prevention measures, they are creating a false sense of security. (p. 154)

Additionally, the *Stress in America* surveys also found that the fear of mass shootings was still a significant stress factors for Americans, despite the efforts to irradicate them (APA, 2018; 2019). Specifically, the 2018 *Generation Z* report stated,

seventy-five percent of those in this age group report mass shootings as a significant source of stress, and nearly as many (72 percent) say the same about school shootings or the possibility of them occurring. Around seven in 10 Millennials report similar feelings about these events (69 percent about mass shootings and 73 percent about school shootings or the possibility of one occurring)…. More than half of Gen Zs who are in school say they experience stress at least sometimes when considering the possibility of a shooting at their school and more than one in five (21 percent) say the possibility of a shooting at their school is a source of stress either constantly or often. (APA, 2018, p.2)

Furthermore, the American Psychological Association [APA] (2018) found, “security measures taken by schools reduce the stress for some, but not most, parents and students” (p.2). They
explain that from the individuals surveyed, 30 percent of the individuals stated that school hardening measures have not done anything to alleviate their stress and another 36 percent of the individuals surveyed stated that the school hardening measures somewhat or significantly increased the stress they feel about school shootings.

Mirroring these findings, the study at hand asked participants to rate their agreement to the statement, “School violence is significant threat to students today.” Of the 61 participants that participated in the study, 43 strongly agree with this statement and 14 students somewhat agree. Additionally, the 61 participants were asked to rate their agreement to the statement, “The student safety measures in my high school were reasonable and effective.” Only seven participants strongly agreed with this and 20 somewhat agreed. Finally, when analyzing the factor profiles, all but one of the factor profiles (Factor 2) felt that the school safety measures were ineffective. When almost 95 percent of the participant in a survey deem school violence as a threat to students and only 44 percent responded that they felt that school hardening measures were effective, it raises concern regarding the effectiveness and fidelity of school hardening measures that have been put into place by state legislators.

Variations in student perceptions of school safety. Researchers have found that certain variables, such as gender, race, age, socioeconomic status, and living environments, have a significant effect on how safe students perceive themselves to be in school. A study conducted by Perumean-Chaney and Sutton (2012) found that students were more likely to think that their school was safe if they were males, Caucasian, had high GPAs, and felt safe in their neighborhood compared to students who “experienced prior victimizations, had larger class sizes, and who attended schools that had disorder problems” (p. 570). The Factor 2 profile supports this claim. The Factor 2 profile was characterized by an overall sense that the
participants were genuinely satisfied with the security measures that were in place. This group welcomed the changes in security measures because it made them feel safe. One point that stood out, in comparison to the other factor profiles, was the positive reception of the presence of law enforcement officials on their campuses because it made them feel safe. The demographic profile of those that loaded significantly to Factor 2 closely resembles the demographic profile that Perumean-Chaney and Sutton (2012) described. Of the participants that loaded significantly to this factor profile, 90 percent of participants were of Caucasian descent and 60 percent identified as male.

Further building on this, Noguera (2007) found that, “students in the small schools were far more likely to report that they felt safe (94%), as compared to students at the large schools (46%). They were also more likely to respond affirmatively to the question ‘If I feel threatened by someone at school there is an adult I can turn to for support’ (92%, compared to 38%)” (p. 208). Hong and Eamon (2011) found “students’ perceptions of residing in a safer neighborhood and residence in a noncentral city metropolitan area, compared with a central city, decreased the odds of perceiving school environments as unsafe” (p. 428). Factor 2’s profile also supports these claims as well. As noted in the factor analysis break down in Table 5-1, those that loaded significantly perceived an overall sense of support from the adults within their respective school settings compared to the other factor profiles. Further, 70 percent of the participants that loaded significantly to Factor 2 attended schools in a suburban area or a rural surrounding. Schools in suburban and rural settings often have smaller class sized than those in urban city centers. One limitation to these findings would be the fact that when designing the study and compiling the demographic information from participants, the researcher did not ask about graduating class
sizes, classroom sizes, or socioeconomic status at the time of their enrollment in their k12 schools.

**Conceptual Framework: Focusing Events and Public Policy Making.** In his book, Public Policymaking, Anderson (2014) lays out the life cycle of public policy. He dictates that sustained and effective public policy is put into place by a distinctive process that is outlined in Table 5-2. I have compared the current public policy on school safety measures to the life cycle that Anderson (2014) outlined. The first stage of this process is defining the policy agenda for change. The social issue that was needed to be addressed in relation to this study is the increase of mass school shootings. The focusing event that spearheaded this movement was the mass shooting that took place on February 14, 2018, at Marjory Stoneman Douglas High School in Parkland, Florida where 17 people were killed, and another 17 victims were wounded.

As a result of this, Astor et al. (2018) headed the Interdisciplinary Group on Preventing School and Community Violence and drafted the *Call for Action to Prevent Gun Violence in the United States of America*. This call to action can be defined as step two in Anderson’s (2014) public policy life cycle. Astor et al. (2018) reason that many current policies revolving around school safety are aimed at reaction as opposed to prevention, and that a public health approach to prevention must be implemented to help curb gun violence and school shootings in America.

Following this, during phase three of the public policy life cycle, Astor et al. (2018) promoted the policy resolution and gained public and political favor. This happened in large part because of the influence of the narratives from student leaders that survived the Parkland shooting. Within a span of two weeks following the Parkland shooting, students banded together to organize trips to the state and country capitals to protest and demand sweeping bans on assault weapons, they met with the speaker of the United States House of Representatives to discuss
these policies, and they initiated a full-on social media battle with National Rifle Association via Twitter (Abowitz & Mamlok, 2020). They created the student led #NeverAgainMSD movement that became a pivotal and unprecedented factor in changing public policy surrounding school safety. According to Abowitz and Mamlok (2020), these survivors took their experience and “moved from trauma, to anger, to indignation, to strategy” (p. 552). Their movement was “characterized by transactional communications and positionalities in the civic, cultural, and political realms” (p. 553) and took “a powerful stance that used political emotion to feed political action” (p.553).

Due to the efforts of these students, Florida Governor, Rick Scott, signed into law Senate Bill 7026—also known as the Marjory Stoneman Douglas High School Public Safety Act (2018) - on March 9, 2018 (Plakon, 2020). This is the law that spearheaded the school hardening movement across the state. The establishment and implementation of Senate Bill 7026 would mark the third and fourth phases of Anderson’s (2014) public policy life cycle. This bill allowed for state funds to be provided to schools to make their respective campuses safer. For example, in the 2019-2020 school year $176, 979, 265 was spent across schools statewide to carry out changes and school hardening measures (Florida Department of Education, 2020). Senate Bill 7026 also dictates that every school in the state must have a school safety officer on campus and requires mental health and community mental health services to be provided to students. Further, SB 7026 mandates that all schools conduct regular active shooter drills, and that school-based leadership teams establish and implement a behavioral threat assessment team to assess the behavior of students that may pose a threat to the school community. Moreover, the law compels all Florida state schools to undergo a security assessment and enact any changes that are recommended through these evaluations. This often involves locked doors, covered windows,
and metal detectors being installed in schools. The law also made way for the creation and execution of the “FortifyFL” app that serves as an anonymous suspicious activity reporting tool on mobile devices (Florida Department of Education, 2020).

The final phase of the public policy life cycle begins upon implementation of the policy. Once the policy has been put into action for a significant amount of time, it needs to be evaluated for the effectiveness at addressing the social agenda that it was created to address. This is done by conducting empirical research and drawing conclusions from data driven analysis relating to the efficacy of the policy and identifying barriers that prevented the policy from being successful, or factors that correlated its success. Since the implementation of SB 7026, the 2018-19 academic year (AY) had nine incidents in which a firearm was discharged in a Florida School, 2019-20 and 2020-21 AYs each had six incidents, 2021-22 AY had 14 incidents, and the current 2022-23 AY has had 10 incidents (Riedman, 2023). In the 2017-18 AY, leading up to SB 7026’s implementation, there were five incidents of firearm discharges in Florida schools, including the well-publicized incident at Marjory Stoneman Douglas High School. Based on the findings of this study and the literature review, the incidents of school shooting in the state of Florida have been increasing, not decreasing. This is counterintuitive to the purpose of SB 7026. The reasoning for this is unknown and is recommended as a topic for future research. Given the increase of school shootings since Florida’s SB 7026, school hardening efforts seem to be doing more harm than good and are more likely raising the levels of anxiety and sense of danger among school-age youth. The findings from this study, among other similar research efforts, should be examined when considering public policy changes related to safety measures within school settings.

Table 5-2
The Life Cycle of Public Policy Relating to School Safety Measures in the State of Florida

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
<th>Stage 4</th>
<th>Stage 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agenda</td>
<td>Formulation</td>
<td>Adaption</td>
<td>Implementation</td>
<td>Evaluation</td>
</tr>
</tbody>
</table>

Anderson’s (2014) Life Cycle of Public Policy

- Defining the problems that receive attention from the public and governing bodies in order to consider action.
- Creating a proposed solution for addressing the public concern/agenda.
- Gaining approval from governing bodies for proposed solution and a consensus to endorse and implement solution.
- Putting the solution into action.
- Determining if the policy was effective by data driven analysis. Identifying reasons for success and/or barriers to effectiveness.

The Life Cycle of Public Policy Relating to School Safety Measures in the State of Florida

- Mass School Shootings are at an all-time high culminating in the Marjory Stoneman Douglas High School shooting in Parkland, FL where a record number of students and faculty were murdered and injured.
- The Interdisciplinary Group on Preventing School and Community Violence and drafted the Call for Action to Prevent Gun Violence in the United States of America which informed the #NeverAgainMSD movement.
- Florida Governor, Rick Scott, signed into law Senate Bill 7026—also known as the Marjory Stoneman Douglas High School Public Safety Act (2018) - on March 9, 2018 (Plakon, 2020). Funds were made available to schools to implement school hardening measures. In the 2019-2020 school year $176,979,265 were spent statewide across schools to carry out changes and school hardening measures (Florida Department of Education, 2020). Looking at the data collected from this study and the literature review, the polices that were put into place were not effective in making students feel safer and lessening the occurrences of gun violence in schools.


Implications

This study adds to a scarce body of research that explores the lived experiences of youth about their sense of safety and school hardening efforts as a result of school mass shootings. Subsequently, the study findings have significant implications for best practices, relevant policies, school leadership, and, most importantly, the oft-forgotten contributions of student-led reforms to help mitigate school shootings. A more accurate understanding of the student perspective on school safety measures is imperative and should be taken into consideration by school leaders in order to implement legislation that can be effective in making students feel safe in school. In this section I will discuss how the study findings have implications for educational
practices and policy. Additionally, I will discuss limitations to the study and recommendations for feature research.

**Practice.** Current school hardening and security theater practices have been the focus of many school districts across the nation. The same holds true for schools in the state of Florida. Millions of dollars of state funds are being spent on school reforms. However, when looking at the findings from this study, only one out of the five different factor profiles felt safe in the school setting in relation to the changes in school security measures they experienced because of SB 7026. This begs the question if the precautions that schools are implementing are a drain on state funds, with little evidence-based results stemming from the costly initiatives. Price and Khubchandani (2019) suggest,

> School systems need to engage in collaborative research for evidence-based practices and policy advocacy through coalition building to address state firearm laws. Schools also need to expand their mental health services and cost-effective educational interventions for reducing violence (e.g., bullying, peer mediation, conflict resolution, etc.). Hardening of schools seems to be a questionable endeavor for most schools, given the dearth of evidence regarding effectiveness (p.154)

Below I will discuss suggestions for practice for school leaders, teachers, and students that emerged from the findings of this study.

**School Leaders.** Many of the factor profiles mention that they felt the security measures that were put into place were not of utmost importance to their school leaders. One participant wrote,

> Despite the fact that the high school I went to already had had a shooting before I got there (it happened while my older brother went there), the principal, administration, and
most teachers did not seem to care about safety or acknowledge that the safety drills were necessary…. Sometimes I would have teachers that did not participate in the drills at all and would ignore safety measures/continue instruction during the drills… I remember being amazed by the apathetic response after the Stoneman Douglas High shooting by my school. The principal called the new safety drill measures (we implemented the ALICE procedure after Parkland) “retarded.” It was all a tedious annoyance to them, so the students began to feel the same.

Students are taking note of how school administrators are reacting to the school hardening measures and following suit. Cultural changes often happen in top-down ways within schools, with changes in school climate not occurring much differently. If school leaders are not buying into mandated school safety policies such as blatantly bashing the safety measures in front of students, then it is no wonder many of the participants in this study did not feeling safe and protected in their schools. How school leaders conduct themselves in front of students and faculty matters. If school leaders are not buying into the school hardening measures, then more than likely the rest of the members of their school communities will not buy into the practices either.

Based on this information, it is in the best interest of school leaders to demonstrate situational awareness when speaking of school safety around students and be more mindful to emphasize the importance of the school safety measures that are being implemented. This suggestion is not meant to be harsh or punitive, but it is a reminder of the humanity in the, often demonized, school administrator. In the current academic culture, being a school leader is an extremely difficult duty. School leaders are put on pedestals and tasked with the catch-22 mission of catering to the needs and wants of federal, state, and district officials, students and
their families, faculty, staff, and community partners. All the while they are scrutinized for every
discussion made under their leadership. As school leaders, our actions and words do not go
unnoticed and, although, there may not be an intended malice in those actions and words, they
could do harm. Much like parenthood, there is not a rule book on how to be the best school
leader, but simple accountability and sincere compassion for our fellow human beings can go a
long way when trying to repair our seemingly irreparable school systems.

Another common theme seen in the post sort comments was that communication was a
major issue for many of the students that didn’t feel safe. There seems to be a disconnect with
the intentions of implemented school hardening measures. Students perceived a lack of
transparency and communication regarding school safety measures to them and their families.
Often students that noted communication was an issue would mistake drills for actual active
shooter events, or vice versa. One participant wrote,

When this same threat [a legitimist active shooter in the school] happened, students found
out before anything was even announced over the intercom. The first thing I saw before I
personally found out was a girl on the phone with her mom crying, and following this,
many students were visibly distressed.

Another participant that experienced an actual active shooter event within their school detailed
their encounter by recalling, “When my high school had an actual school shooting, I thought it
was a drill because everyone was yelling over the speakers.” As a result of this, this participant
ended up test messaging their parents to tell them, “I loved them and was alive…but I didn't
know how much longer I would be.” An additional participant wrote that they thought, “the drills
were important, but many teachers and students did not know how to carry them out effectively.
The communication was off in order to prepare for a real drill.” Finally, another participant
recollected their anger of finding out that a potential active shooter event was a drill and not an actual genuine threat by scribing,

I have a clear memory of being very unsure of whether or not it was a real shooting and messaging my mom about that to let her know, when it was revealed that it was all a test I was confused about why they would leave whether a life or death situation was happening ambiguous because it was not a fun time.

These participants want to know if the drills that they are participating in are actual threats or if they are just drills. It can be common practice for schools to hide the fact that drills are not actual threats. Some schools have gone as far as hiring actors to portray an active shooter on campus and have had law enforcement officers fire black rounds into the hallways to mimic a real active shooter event. A recommendation to school leaders would be to discontinue use of the school announcement system to announce active shooters drills/events. Instead, it is recommended to use a bell system with different tones to indicate if a lockdown drill is a real threat or a practice exercise. The different tones should be introduced to students so that when they hear the tone they know if there is an imminent threat on campus or not.

**Teachers.** During data collection for this study, many comments were made regarding how teachers implemented safety measures within the school setting and how they reacted to students. One participant shared, “many teachers and students did not know how to carry them [active shooter drills] out effectively.” Many participants noted that the way that teachers implemented active shooter drills within the classroom varied across room and teacher. One participant that was quoted in the previous section above was frustrated that teachers weren’t taking the drills seriously and would even ignore drills all together to continue teaching, despite their school being a target of an active shooter intendent in years past. One student warned, “the
way teachers and students handle these situations could quite literally mean life or death” and felt that the drills became “so normalized” that they ceased to “feel real.” Another participant wrote, “Some teachers even just let you sit at your desk and be quiet, so it’d be easier to start the lesson after the 5 minutes.” And yet another participant shared, “in some of my classes, during the drill, students would openly argue about the viability of actions we took for our ‘protection’. Sometimes the teachers would agree with us and openly admit what they and what we planned would be far more effective.” Participant 32 was surprised by the teachers’ variations in attitude towards the drills. Routine and repetition of these drills seemed to wear on many of the teacher in the narratives that the participants shared during data collection, which lead to a lack of fidelity in the implementation of these safety practices. Teachers should implement these practices in a uniform way to assist students.

Another implication for teachers to take into consideration for classroom practices is how the emotional wellbeing of students is being handled after the conclusion of active shooter drills. Only one factor profile (Factor 2) emphasized a felt security in the support that they received from their teachers. For example, one participant noticed that “the teachers made it as quick and relaxing as they could.” Another participant also gave accolades to their teachers by commenting that their “teachers did well on the few drills we had,” but noticed their teachers “didn't really discuss them [the drills] afterwards.” This is an important point that was made because participant 60 explained that the relationship they had with their teacher significantly impacted how safe they felt within the school setting, especially during active shooter drills. They recalled,

So out of all of my teachers, I had this one teacher who made all the students feel safe and protected. She was younger and told us that if someone were to get past her to fight with whatever we could use. She taught us survival and not just to sit and be quiet, she
wanted us to know that we need to protect ourselves and our classmates, and I really appreciated her.

Participant 60 felt that their teacher was genuine in their care for their students and because of this felt safer in the class setting. Further, participant 10, felt that since there was an active shooter event that happened so close to their school,

everyone knew that we weren't okay, and we were all there for each other. The adults and everyone acknowledged our expressions. Before or after each drill the teachers took time to discuss the importance and allow us to express or talk about anything we would like.

They concluded that because they were given the space to process their emotions, their teachers did a great job in implementing the drills. It built a sense of community and support between the students, teacher, staff, and administration. It pushed the agenda that it was okay to not be okay with the fear of a mass school shooting lingering in the air. Perhaps this is what students need from their teachers - the space to process what is happening within their school walls, and the reasoning behind it all. If teachers feel they are unable to personally provide this to their students, they should loop in school counselors or social workers to help support them.

**Students.** Often implications and suggestions for practice are examined from a leadership and teacher perspective and rarely from a student perspective. As this study primary focuses on the viewpoints of students, it would be counterintuitive to not discuss things that students can do to make their schools feel safer. Of the 61 participants, 17 of them mentioned that their peers did not take their active shooter drills seriously. One participant wrote, “the students underplayed the threat. When my high school had an actual school shooting, I thought it was a drill because everyone was yelling over the speakers.” Another student shared that during drills, their peers would “joke about the shootings and things which made me very uncomfortable.” Most notably,
another participant disclosed, “I had one friend with bad anxiety and every time we had a lockdown drill, we had to keep reassuring her that it was just a drill, and we would all be okay. Meanwhile, the rest of us didn't really take it as seriously as we should have.” Based on these statements, it is imperative that students to be vigilant during active shooter drills and for them to support one another when it comes to the implementation of school hardening measures.

Although as a student, one student may not be fazed by the active shooter drills, other students in their classes might need emotional support during this time. Further adjusting behavior within the classroom setting during active shooter drills could lead to less confusion between a deciphering between a real threat and a drill. The ability to clearly distinguish between the two of these events could ease fear for many students within the classroom setting.

Additionally, when taking the factor profiles into consideration, all the factor profiles, except for Factor 2, were not satisfied with the school hardening measures that were implemented within their school settings. Many participants emphasized the desire for changes in school safety measures and protocols to include instruction on fighting back and/or gun laws to change. It was a unanimous wish amongst the students that desired to see changes within their school settings to not feel helpless in an active shooter situation. It was noted that the strategy of hiding from an active shooter made them feel like “sitting ducks” that were waiting on their impending doom. From the research conducted prior to this survey it would be irresponsible to not encourage students to play a more active role in advocating for their needs and wants to state and federal law makers, school leaders, teachers, and peers. As seen by the efforts of the student survivors of the Marjory Stoneman Douglas High School mass school shooting, an agenda pushed by student voices can make major changes within the school system. Students should continue to have conversations about practices that are concerning to them amongst their peers
and administrators at the school and district levels to help being attentions to their concerns and bolster changes in policies to assist in making them feel safe at school.

**Policy.** Looking to implications for policy makers, the information from the research conducted should be taken into consideration when discussing future legislation and policy updates in relation to school safety measures. As stated previously, most of the participants in the study wanted to see policy changes happen within the school setting regarding school safety measures. One participant wrote, “school implemented policies such as locking classroom doors all the time and requiring students to wear IDs after the Parkland shooting but these policies just left kids frequently stuck in the hallway if they went to the bathroom.” Because of this they, “question [ed] how beneficial they were.” Another participant poignantly pointed out, “if the school shooter was a student, they would know what to do and where to go to do what they want. It [current school safety procedures and active shooter drills] just helps the potential shooter plan better.”

There was also a lot of confusion regarding the usefulness of current safety practices. One participant expressed their frustration by writing,

I don't understand why they are going to make high schoolers do shooter drills if all they are going to do is disrupt their learning to scare them and make them hide for 15 minutes, that accomplishes nothing….why do we have to act that out every month?

Despite the explicit nature of this statement, the sentiment is loud and clear, they do not understand why monthly drills are necessary. One student felt that because of the frequency of the drills, “they were viewed more as an interruption that they were useful,” and concluded, “as result we didn't take them very seriously.” In fact, many of the participants that provided feedback felt that the policies that were put into place, as a result of SB 7026, were constant
reminders of the threat of violence against them at their schools which lead to feelings of anxiety and fear amid the participants. One participant shared, “you could feel trapped because you couldn't just escape” from the fear of a mass school shooting occurring. This same participant felt the consent reminders of the threat of an active shooter event taking place in the school setting led “to more stress and disruption” within their daily school routine. Another Florida student participant noted that because of the Marjory Stoneman Douglas High School mass school shooting an “annual search” took place every Valentine’s Day. They explained that the annual Valentine’s Day search “was a reminder that the shooting happened. I hated it. I had anxiety always thinking about what if there was a shooting.” They also explained that the “more we practice the more” they “felt like it [a mass school shooting] was bound to happen.”

Finally, another participant reasoned, “statistically speaking, the chances of being involved in an active shooter event on campus are astronomically low, with a greater chance of fatality being a car accident on the way to school.” They argued that “the drills felt wholly unnecessary to me and offered no real benefit [to student safety]” and placed “undue stress on my fellow students” because the drills placed “emphasis on such an unlikely event, all the drills did was scare my peers for no tangible reason and make them believe that it was more likely that it actually was.” Taking into consideration the information these participants shared, it is only fitting to question if state funds are being allocated effectively to make schools feel safer for students.

Noguera (2007) found that, “students in the small schools were far more likely to report that they felt safe (94%), as compared to students at the large schools (46%). They were also more likely to respond affirmatively to the question ‘If I feel threatened by someone at school there is an adult I can turn to for support’ (92%, compared to 38%)” (p. 208). Based on these
findings and the results from this study, it could be argued that state educational funds should be allocated to opening more schools, or at the bare minimum hiring more teachers and/or school counselors to make smaller classrooms for student to cultivate a sense of safety and community within the school setting. Further, Hong and Eamon (2011) found “students’ perceptions of residing in a safer neighborhood and residence in a noncentral city metropolitan area, compared with a central city, decreased the odds of perceiving school environments as unsafe” (p. 428). Granted, not much can be done to change the location of a student’s home, but state funds could be allocated to central city neighborhoods to make them safer and beautify them for the families of those communities. One could even argue state funds be funneled into more rigid gun control laws, as mass school shootings may not happen as frequently as they do without the ready access to legal firearms.

**Limitations**

As with any research endeavor, this study was not immune to limitations. Due to COVID concerns and other factors, this study was conducted remotely and virtually. This is certainly a limitation to the data gathering process as the researcher can miss out on opportunities for clarification and in depth questioning regarding post sort statements and thoughts. Further, another limitation to this study exists pertaining to the data analysis software that was used. During the data analysis process, the researcher was only able to create one data analysis profile before an error with the software’s algorithms and programing prohibited the researcher from running any more statistical data analyses on the collected data sets.

**Recommendations for Research**

Regardless of the implications on policy and practice that this study has brought to light, there still exists a multitude of avenues to try to make schools feel safer for students. These
avenues could be explored with future research efforts. One recommendation for future research that stood out was to conduct the same research Q-sort with actual high school students, as opposed to recent high school graduates, and examining how the two different populations factor profiles compared to one another. Another suggestion for future research stemmed from a comment that a participant made regarding their neurodivergence. They shared in their post sort comments, “being interrupted by an unscheduled drill and having ADHD makes it much harder to regain focus.” This statement sparked an interest in exploring the effects of active shooter drills on neurodivergent students, with ADHD, and comparing those findings to their neurotypical counterparts. Finally, another suggestion for future research focused at investigating other perspective, such as parents and teachers, around school hardening campaigns.

**Conclusion and Thoughts on Leadership Development and School Counseling Implications**

In undergoing the process of this research study, I initially thought that the findings from this study would definitively point the need for policy reforms and beg for more mental health services within the school setting. To my surprise, there existed a variety of viewpoints to examine, none of which mentioned anything about mental health support by trained mental health professional. But the thing that stood out to me was the idea that many of these participants simply wanted connection and to feel supported by adults and peers within their school settings. This observation has implications for the types of connections that can be facilitated not just for victims of school shootings but for the preventive measures that can be implemented to support ‘would-be’ perpetrators of school violence. The only factor profile that emphasized feeling supported by adults within their school setting was the same profile that felt
safe at school. Granted correlation does not equal causation, but it is notable and might warrant further exploration.

I was also surprised by the urgent desire of students to learn more reactive strategies for protecting themselves, like fighting strategies, rather than proactive strategies, like creating better school environments the encourage better school cultures and climates. Although all the participants were avid participants in school safety drills, many of the students had put a significant amount of time and effort in planning alternative survival strategies, that did not fall into line with what they were being taught in school. A few participants illustrated their plans in intimate detail. It was heartbreaking to read them and come to the realization that these, then children, where so worried about being murdered within their schools that they had contrived such intricate escape and fight plans just to see another day. This is not what schools should look like.

Upon undertaking this research topic, I did not realize the sheer amount of empirical research that existed regarding mass school shootings. This made it difficult to synthesis some of the data, but many things have come to light in relation to the results of this study and how it’s effected my views on leadership practices - particularly how educational leaders have created and implemented school safety policies. I have come to understand that it is difficult, and almost impossible, for educational leaders at a state and district level to create one size fits all policies to make every person feel safe within the school setting. All they can do is implement policies that effect the greater good and hope for the best.

As a practicing school counselor going into my 10th year of service, I have worn many hats in the school setting. One thing that I believe school counselors must continue to do is advocate for our profession. In the state of Florida, school counselors are often being buried
under a never ended pile of clerical paperwork and are given duties that fall out of our wheelhouse. Because of this we are unable to spend the meaningful time with their students that is warranted to build meaningful connections. If the results of this study have concluded anything, it is that our students need connections, especially with adults in their schools. And that is what a school counselor’s job is - to build relationships with students and connect with their students. I would urge school counselors to keep pushing to be tasked with the appropriate duties that we were trained for.

Additionally, I’m imploring educational leaders to recognize the unique skill set school counselors have honed to be able to connect and fund more school counseling positions within the school settings. The American School Counselor Association [ASCA] (2023) recommend that schools employ at least one school counselor to every 250 students enrolled in the school. Currently, the national school counselor to student ratio is 1:408 (ASCA, 2023). Lower student school counselor to student ratios have been found to “increases in standardized test performance, attendance, GPA, and graduation rates, as well as decreased disciplinary infractions” (ASCA, 2023, p.1). Furthermore, in a meta-analysis of student to school counselor ratio funded by ASCA Kearney et al. (2021) concluded,

a one standard deviation change in the ratio is likely to result in a 6% standard deviation in student outcomes, especially in terms of improving attendance, decreasing disciplinary infractions, and increasing high school graduation. (p.1)

Hiring more school counselors not only is important for student outcomes, but it could be the way to help foster connections within the school setting and aid is students feeling safer at school.
This study gave voice to a population of individuals that previously were overlooked when implementing school safety policies. There was an overwhelming sense of helplessness that existed amidst the participants that shared their experiences with me. I want to be the type of educational leader that gives a voice to my students. I want them to know that their opinion matter, because they are the ones that are affected the most by the policies that are fashioned. It is naïve of me to think that this study holds the potential to shed an undeniable light on best practices for schools in relation to school hardening campaigns. But this study has left me with more questions and a deeper desire to explore the viewpoints and experiences of our students regarding their perceived safety within their school settings. It is my desire that the findings of this study will add to the literature that exists regarding mass school shootings and school safety measures that have resulted due to the increase of these active shooter events.
References


Blad, E. (2018). Do schools' 'active-shooter' drills prepare or frighten?. *The Education Digest, 83*(6), 4-8.


https://www.cdc.gov/violenceprevention/youthviolence/schoolviolence/SAVD.html


https://www.cdc.gov/violenceprevention/youthviolence/schoolviolence/SAVD.html


https://www.cdc.gov/violenceprevention/youthviolence/fastfact.html


https://www.cdc.gov/violenceprevention/youthviolence/schoolviolence/fastfact.html


https://doi.org/10.1111/ssqu.12269


https://www.motherjones.com/politics/2012/07/mass-shootings-map/


https://doi.org/10.1177/0886260520969403


Polanin, J., Espelage, D., Grotpeter, J., Spinney, E., Ingram, K., Valido, A., El Sheikh, A.,
between school violence and mental health, school performance, and criminal or
https://doi.org/10.1037/bul0000314.supp (Supplemental)


Educational Motivation in Tehran Primary Schools. *International Journal of Mental

Price J., & Khubchandani J. (2019). School firearm violence prevention practices and policies:


Ransford, C., Decker, R., Cruz, G., Sanchez, F., & Slutkin, G. (2017). The Cure Violence model:
violence reduction in San Pedro Sula (Honduras). *REVISTA CIDOB D AFERS
INTERNATIONALS, (116), 179-204.

Reeping, P. M., Gobaud, A., Branas, C. C., & Rajan, S. (2020). K–12 School Shootings:
Implications for Policy, Prevention, and Child Well-Being. *The Pediatric Clinics of

Homeland Defense and Security: K-12 School Shooting Database. Retrieved May 10,
2021, from https://www.chds.us/ssdb/charts-graphs/


https://doi.org/10.1037/vio0000373


https://doi.org/10.1080/15388220802074165


## APPENDIX A - DEFINITIONS OF Q METHODS TERMS

Table A1

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concourse</td>
<td>Most often consists of a broad range of communications on the topic in the form of statements. Can also be scents, sounds, or images.</td>
</tr>
<tr>
<td>Q-sample</td>
<td>Selected from the concourse, the Q-sample is representative of the communications within the larger concourse.</td>
</tr>
<tr>
<td>Sample Size</td>
<td>In Q, the sample size is the number of statements within the Q-sample (not the number of sorters)</td>
</tr>
<tr>
<td>P-set</td>
<td>Those who perform the Q-sort.</td>
</tr>
<tr>
<td>Condition of</td>
<td>What the sorter considers while performing the Q-sort. For instance, &quot;Sort the statements based upon your view of this physics course.&quot;</td>
</tr>
<tr>
<td>Instruction</td>
<td></td>
</tr>
<tr>
<td>Q-sort</td>
<td>Participants consider each numbered statement within the Q-sample and order them based upon their own preferences, likes and dislikes, into a grid provided by the researcher.</td>
</tr>
<tr>
<td>Centroid</td>
<td>A factor extraction method that uses a specific form of communality estimation detailed in Brown (1980).</td>
</tr>
<tr>
<td>Principal Component</td>
<td>A standard, mathematically unambiguous factor extraction procedure that can be found in standard textbooks on factor analysis.</td>
</tr>
<tr>
<td>Analysis</td>
<td></td>
</tr>
<tr>
<td>Hand Rotation</td>
<td>Sometimes referred to as judgmental rotation or theoretical rotation, this factor rotation is graphical rather than mathematical and was common before computers. This method allows researchers to rotate based on theoretical considerations rather than statistical ones.</td>
</tr>
<tr>
<td>Varimax</td>
<td>Common orthogonal factor rotation method where the sum of the variances of the squared loadings (squared correlations between sorters and factors) is maximized.</td>
</tr>
<tr>
<td>Flagged (on a factor)</td>
<td>This Q-sort is representative of this factor view based upon factor loadings (correlations between the sorters and the factors; i.e., structure coefficients).</td>
</tr>
<tr>
<td>Theoretical sort</td>
<td>The analyses provide a Q-sort that represents the factor based upon those sorts flagged on that factor.</td>
</tr>
<tr>
<td>Consensus Statement</td>
<td>A statement where the factor scores do not distinguish between any pair of factors due to a statistically non-significance at a .01 level. Represents agreement among a pair of factors.</td>
</tr>
<tr>
<td>Distinguishing Statement</td>
<td>The statement factor scores are statistically significantly different at the .05 level among at least one pair of factors.</td>
</tr>
</tbody>
</table>

APPENDIX B - INCIDENTS OF ACTIVE SHOOTER EVENTS IN K-12 SCHOOLS

Table A2

Incidents of Active Shooter Events in K-12 Schools from 1970 to 2021

<table>
<thead>
<tr>
<th>Year</th>
<th>School</th>
<th>State</th>
<th>Year</th>
<th>School</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>Austin-East Magnet High School</td>
<td>TN</td>
<td>2001</td>
<td>Caro Learning Center</td>
<td>MI</td>
</tr>
<tr>
<td></td>
<td>San Diego High School</td>
<td>CA</td>
<td></td>
<td>Ennis High School</td>
<td>TX</td>
</tr>
<tr>
<td></td>
<td>Rigby Middle School</td>
<td>ID</td>
<td></td>
<td>Monroe City Alternative Center</td>
<td>LA</td>
</tr>
<tr>
<td></td>
<td>Forest Lake Elementary</td>
<td>SC</td>
<td></td>
<td>Wahluke High School</td>
<td>WA</td>
</tr>
<tr>
<td>2020</td>
<td>Khalsa Montessori Charter</td>
<td>AZ</td>
<td></td>
<td>Granite Hills High School</td>
<td>CA</td>
</tr>
<tr>
<td>2019</td>
<td>Sacred Heart School</td>
<td>NJ</td>
<td></td>
<td>Kentwood High School</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td>Saugus High School</td>
<td>CA</td>
<td></td>
<td>Santana High School</td>
<td>CA</td>
</tr>
<tr>
<td></td>
<td>Ladd-Peebles Stadium</td>
<td>AL</td>
<td></td>
<td>Osborn High School</td>
<td>MI</td>
</tr>
<tr>
<td></td>
<td>Parkrose High School</td>
<td>OR</td>
<td></td>
<td>Hueneme High School</td>
<td>CA</td>
</tr>
<tr>
<td></td>
<td>STEM School Highlands Ranch</td>
<td>CO</td>
<td>2000</td>
<td>Newman Smith High School</td>
<td>TX</td>
</tr>
<tr>
<td></td>
<td>Wynbrooke Elementary Theme School</td>
<td>GA</td>
<td></td>
<td>Pioneer Elementary School</td>
<td>AZ</td>
</tr>
<tr>
<td></td>
<td>Frederick Douglass High School</td>
<td>MD</td>
<td></td>
<td>Mount Healthy North Junior High</td>
<td>OH</td>
</tr>
<tr>
<td>2018</td>
<td>Dennis Intermediate School</td>
<td>IN</td>
<td></td>
<td>Dimmitt Middle School</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td>North Scott Junior High School</td>
<td>IA</td>
<td></td>
<td>McKinley Elementary School</td>
<td>OH</td>
</tr>
<tr>
<td></td>
<td>Villa Heights Elementary School</td>
<td>NC</td>
<td></td>
<td>Erwin High School</td>
<td>NC</td>
</tr>
<tr>
<td></td>
<td>Noblesville West Middle School</td>
<td>IN</td>
<td>1999</td>
<td>Fort Gibson Middle School</td>
<td>OK</td>
</tr>
<tr>
<td></td>
<td>Santa Fe High School</td>
<td>TX</td>
<td></td>
<td>Deming Middle School</td>
<td>NM</td>
</tr>
<tr>
<td></td>
<td>Dixon High School</td>
<td>IL</td>
<td></td>
<td>Heritage High School</td>
<td>GA</td>
</tr>
<tr>
<td></td>
<td>Forest High School</td>
<td>FL</td>
<td></td>
<td>Columbine High School</td>
<td>CO</td>
</tr>
<tr>
<td></td>
<td>Dalton High School</td>
<td>GA</td>
<td></td>
<td>Notus Jr. Sr. High School</td>
<td>ID</td>
</tr>
<tr>
<td></td>
<td>Marjory Stoneman Douglas High School</td>
<td>FL</td>
<td></td>
<td>Jefferson-Todd Educational Center</td>
<td>MS</td>
</tr>
<tr>
<td></td>
<td>Marshall County High School</td>
<td>KY</td>
<td>1998</td>
<td>Thurston High School</td>
<td>OR</td>
</tr>
<tr>
<td></td>
<td>Italy High School</td>
<td>TX</td>
<td></td>
<td>Parker Middle School</td>
<td>PA</td>
</tr>
<tr>
<td>2017</td>
<td>Aztec High School</td>
<td>NM</td>
<td></td>
<td>Oakfield Middle School</td>
<td>WI</td>
</tr>
<tr>
<td></td>
<td>Rancho Tehama Elementary School</td>
<td>CA</td>
<td></td>
<td>Westside Middle School</td>
<td>AR</td>
</tr>
<tr>
<td></td>
<td>Mattoon High School</td>
<td>IL</td>
<td>1997</td>
<td>Stamps High School</td>
<td>AR</td>
</tr>
<tr>
<td></td>
<td>Freeman High School</td>
<td>WA</td>
<td></td>
<td>Heath High School</td>
<td>KY</td>
</tr>
<tr>
<td></td>
<td>Columbus Scioto 6-12</td>
<td>OH</td>
<td></td>
<td>Pearl High School</td>
<td>MS</td>
</tr>
<tr>
<td></td>
<td>West Liberty-Salem High School</td>
<td>OH</td>
<td></td>
<td>Bethel Regional High School</td>
<td>AK</td>
</tr>
<tr>
<td>2016</td>
<td>Mueller Park Junior High School</td>
<td>UT</td>
<td>1996</td>
<td>Mid-Peninsula High School</td>
<td>CA</td>
</tr>
<tr>
<td></td>
<td>Townville Elementary School</td>
<td>SC</td>
<td></td>
<td>Frontier Middle School</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td>Antigo High School</td>
<td>WI</td>
<td>1995</td>
<td>Richland High School</td>
<td>TN</td>
</tr>
<tr>
<td></td>
<td>Madison High School</td>
<td>OH</td>
<td></td>
<td>Blackville-Hilda High School</td>
<td>SC</td>
</tr>
<tr>
<td>Year</td>
<td>School Name</td>
<td>State</td>
<td>School Name</td>
<td>State</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>-------------------------------------</td>
<td>-------</td>
<td>-------------------------------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>Harrisburg High School</td>
<td>SD</td>
<td>George Rogers Clark High School</td>
<td>KY</td>
<td></td>
</tr>
<tr>
<td></td>
<td>William Velasquez Elementary School</td>
<td>TX</td>
<td>Cardozo Senior High School</td>
<td>DC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>South Macon Elementary School</td>
<td>NC</td>
<td>Wickliffe Middle School</td>
<td>OH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>North Thurston High School</td>
<td>WA</td>
<td>Larry A. Ryle High School</td>
<td>KY</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>Marysville Pilchuck High School</td>
<td>WA</td>
<td>Kemper Military School and College</td>
<td>MO</td>
<td></td>
</tr>
<tr>
<td></td>
<td>West High School</td>
<td>NH</td>
<td>Paul Lawrence Dunbar High School</td>
<td>DC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reynolds High School</td>
<td>OR</td>
<td>Chelsea High School</td>
<td>MI</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Berrendo Middle School</td>
<td>NM</td>
<td>Central Junior High School</td>
<td>WY</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>Arapahoe High School</td>
<td>CO</td>
<td>Ford Middle School</td>
<td>MA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sparks Middle School</td>
<td>NV</td>
<td>East Carter High School</td>
<td>KY</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ronald E. McNair Discovery Learning Academy</td>
<td>GA</td>
<td>Silverado Middle School</td>
<td>CA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Taft Union High School</td>
<td>CA</td>
<td>Lindhurst High School</td>
<td>CA</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>Sandy Hook Elementary School</td>
<td>CT</td>
<td>Monadnock Regional High School</td>
<td>NH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Normal Community High School</td>
<td>IL</td>
<td>South Forsyth Middle School - High School</td>
<td>GA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Perry Hall High School</td>
<td>MD</td>
<td>Charlestown High School</td>
<td>IN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Episcopal School of Jacksonville</td>
<td>FL</td>
<td>Loara High School</td>
<td>CA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chardon High School</td>
<td>OH</td>
<td>Jackson County High School</td>
<td>KY</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>Issaquah High School</td>
<td>WA</td>
<td>Cleveland Elementary School</td>
<td>CA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Millard South High School</td>
<td>NE</td>
<td>Rigby Junior High School</td>
<td>ID</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>Marinette High School</td>
<td>WI</td>
<td>Atlantic Shores Christian School</td>
<td>VA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kelly Elementary School</td>
<td>CA</td>
<td>Mascotte Elementary School</td>
<td>FL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Socastee High School</td>
<td>SC</td>
<td>Oakland Elementary School</td>
<td>SC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sullivan Central High School</td>
<td>TN</td>
<td>Moses Montefoire Public School</td>
<td>IL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Woodrow Wilson High School</td>
<td>VA</td>
<td>Hubbard Woods Elementary School</td>
<td>IL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Deer Creek Middle School</td>
<td>CO</td>
<td>Pinellas Park High School</td>
<td>FL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Discovery Middle School</td>
<td>AL</td>
<td>West End Christian Elementary School</td>
<td>AL</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>Larose-Cut Off Middle School</td>
<td>LA</td>
<td>Orme School</td>
<td>AZ</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>Stockton Springs Elementary School</td>
<td>ME</td>
<td>Cokeville Elementary School</td>
<td>WY</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>Success Tech Academy</td>
<td>OH</td>
<td>Portland Junior High School</td>
<td>CT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Las Plumas High School</td>
<td>CA</td>
<td>Archbishop Ryan High School</td>
<td>PA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Springwater Trail High School</td>
<td>OR</td>
<td>Concord High School</td>
<td>NH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Robert A. Taft IT High School</td>
<td>OH</td>
<td>Murray-Wright High School</td>
<td>MI</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>Memorial Middle School</td>
<td>MO</td>
<td>Goddard Junior High School</td>
<td>KS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>West Nickel Mines School</td>
<td>PA</td>
<td>Edwardsville High School</td>
<td>MO</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Weston High School</td>
<td>WI</td>
<td>Richland High School</td>
<td>TX</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Platte Canyon High School</td>
<td>CO</td>
<td>Millsap Elementary School</td>
<td>TX</td>
<td></td>
</tr>
<tr>
<td>School Name</td>
<td>State</td>
<td>Year</td>
<td>School Name</td>
<td>State</td>
<td></td>
</tr>
<tr>
<td>------------------------------------</td>
<td>-------</td>
<td>------</td>
<td>------------------------------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>Orange High School</td>
<td>NC</td>
<td></td>
<td>Booker T. Washington High School</td>
<td>TX</td>
<td></td>
</tr>
<tr>
<td>Northampton Area Senior High School</td>
<td>PA</td>
<td></td>
<td>49th Street Elementary School</td>
<td>CA</td>
<td></td>
</tr>
<tr>
<td>East Chapel Hill High School</td>
<td>NC</td>
<td>1983</td>
<td>Brentwood High School</td>
<td>NY</td>
<td></td>
</tr>
<tr>
<td>Pine Middle School</td>
<td>NV</td>
<td></td>
<td>Parkway South Middle School</td>
<td>MO</td>
<td></td>
</tr>
<tr>
<td>2005 Campbell County High School</td>
<td>TN</td>
<td>1982</td>
<td>Lake Braddock Secondary School</td>
<td>VA</td>
<td></td>
</tr>
<tr>
<td>Farmington High School</td>
<td>MI</td>
<td></td>
<td>Valley High School</td>
<td>NV</td>
<td></td>
</tr>
<tr>
<td>Red Lake Senior High School</td>
<td>MN</td>
<td>1980</td>
<td>Longfellow Junior High School</td>
<td>OH</td>
<td></td>
</tr>
<tr>
<td>2004 Columbia High School</td>
<td>NY</td>
<td></td>
<td>Bridgeport Central High School</td>
<td>CT</td>
<td></td>
</tr>
<tr>
<td>Fay Galloway Elementary School</td>
<td>NV</td>
<td></td>
<td>Whittier High School</td>
<td>CA</td>
<td></td>
</tr>
<tr>
<td>2003 Marion High School</td>
<td>LA</td>
<td>1979</td>
<td>Grover Cleveland Elementary School</td>
<td>CA</td>
<td></td>
</tr>
<tr>
<td>Burns Middle School</td>
<td>NC</td>
<td>1978</td>
<td>Downtown Junior High School</td>
<td>PA</td>
<td></td>
</tr>
<tr>
<td>Rocorri High School</td>
<td>MN</td>
<td></td>
<td>Ridgewood High School</td>
<td>IL</td>
<td></td>
</tr>
<tr>
<td>Lewis and Clark High School</td>
<td>WA</td>
<td></td>
<td>Everett High School</td>
<td>MI</td>
<td></td>
</tr>
<tr>
<td>Rock L. Butler Middle School</td>
<td>PA</td>
<td>1977</td>
<td>Blue Hills Vocational High School</td>
<td>MA</td>
<td></td>
</tr>
<tr>
<td>Red Lion Area Junior High School</td>
<td>PA</td>
<td></td>
<td>Hazelwood Central Senior High School</td>
<td>MO</td>
<td></td>
</tr>
<tr>
<td>John McDonogh High School</td>
<td>LA</td>
<td>1976</td>
<td>Fremont School</td>
<td>MO</td>
<td></td>
</tr>
<tr>
<td>West Carter Middle School</td>
<td>KY</td>
<td>1975</td>
<td>Patterson Cooperative High School</td>
<td>OH</td>
<td></td>
</tr>
<tr>
<td>2002 Scurry-Rosser High School</td>
<td>TX</td>
<td></td>
<td>St. James School</td>
<td>NJ</td>
<td></td>
</tr>
<tr>
<td>Ambler Avenue Elementary School</td>
<td>CA</td>
<td>1974</td>
<td>Olean High School</td>
<td>NY</td>
<td></td>
</tr>
<tr>
<td>John Barrett Middle School</td>
<td>CA</td>
<td></td>
<td>James Madison Junior High School</td>
<td>CA</td>
<td></td>
</tr>
<tr>
<td>Raymond High School</td>
<td>MS</td>
<td>1973</td>
<td>Barton Elementary School</td>
<td>IL</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Barberton High School</td>
<td>OH</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Elmhurst Wood Park Community High School</td>
<td>IL</td>
<td></td>
</tr>
<tr>
<td>1971 Carlsbad Mid-High School</td>
<td>NM</td>
<td></td>
<td>Peabody Junior High School</td>
<td>VA</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* This table was compiled on May 9th, 2021. The 2021 events are only a representation of school shootings that have occurred up until this point. Adapted from K-12 School Shooting Database by Riedman and O’Neill (2021). Center for Homeland Defense and Security: K-12 School Shooting Database. Retrieved May 10, 2021, from https://www.chds.us//
Hello!

I am looking for recent high school graduates (classes of 2021, 2020, and 2019) that are 18 years or older and enrolled in ANY institution of high education to participate in research study that I am conducting to fulfill a requirement of my doctoral studies in Education Leadership at the University of North Florida.

If you, or anyone you know that fit the criteria above, would be interested in providing their opinions reading school safety measures implemented in the k12 setting given the recent increase in mass school shootings, please send them the attached letter with more information and the link to the online survey. This study is approved by the University of North Florida Institutional Review Board (IRB#1460535-1).

This will be the first part of a two-part study and should only take 5-10 minutes. Please reach out to me if you would like to hear more about my study or have any questions.

Marie Farjian, M.S., N.C.C.
Doctoral Candidate, University of North Florida
Marie.ann.farjian@UNF.edu
Hello!

I am working on my dissertation for my doctorate in Educational Leadership at the University of North Florida. I am studying the perceptions of recent high school graduates regarding school safety measures that have been implemented in k-12 schools across the nation due to the increased threat of mass school shootings.

I am looking for recent high school graduates (classes of 2021, 2020, and 2019) that are enrolled at any institution of higher education and are 18 years or older to participate in an opinion-based study. Participation in the study will be virtual using an electronic survey using the link below. Participation in this sorting process and the accompanying background information questions will take approximately 5-10 minutes to complete.

Participation is completely voluntary; students may withdraw at any time during the process. All responses will be anonymous, as no personally identifying data (like names and emails) will be collected. Additionally, all data collected from this process will be kept securely by the researchers, and any data and findings resulting from this study that are eventually described in writing or presented publicly, will only be in the aggregate. In compliance with IRB requirements and to ensure data security, responses will be stored on a secure server and destroyed at the culmination of this research.

Again, please note that no personal identifiable information will be collected. There are no foreseeable risks, direct benefits, or compensation for participating in this study. However, participation in this research may lead to a general advancement in how educational policies surrounding school safety are implemented.

The University of North Florida Institutional Review Board has approved this research study. If you have any concerns, questions, or requests regarding your rights as a participant, please contact the University of North Florida’s Institutional Review Board directly at 904-620-2498 or via email at irb@unf.edu.

Should you have any questions regarding the design or purpose of this study or the research approach I am using, please feel free to contact me, Marie Farjian via email at Marie.ann.farjian@UNF.edu or my dissertation chairperson Dr. Sophie Filibert at so.filibert@unf.edu.

Completion of this concourse questionnaire implies that you have read the information describing the process and consent to take part in the research.

Please click the link below to go to the online questionnaire or copy and paste the link into your internet browser to begin the survey. Upon opening the link below, you will be asked to read additional consent language for this study. Upon checking the box, the actual survey instrument will be launched.

https://unf.co1.qualtrics.com/jfe/form/SV_6Xz7lr3WEE0TxP0
Thank you in advance for your time and participation.
Sincerely,
Marie Farjian
Principal Investigator
APPENDIX D – IRB APPROVAL

MEMORANDUM

DATE: March 7, 2022

TO: Ms. Marie Farjian

VIA: Dr. Sophie Filibert
Leadership, School Counseling & Sport Management

FROM: Dr. Jennifer Wesely, Chairperson
On behalf of the UNF Institutional Review Board

RE: Declaration of Exempt Status for IRB#1460535-1
“Exploring the Perceptions of High School Students Regarding Pk-12 School Safety Measures Considering Increased Occurrences of Mass School Shootings: A Q Method Study”

This is to advise you that your above-referenced study has been reviewed on behalf of the UNF Institutional Review Board and has been declared “Exempt” from further IRB oversight under Exempt Category, 45 CFR 46.104(2)(i). This exemption applies to your project in the form and content as submitted to the IRB for review.

According to the Code of Federal Regulations (45 CFR 46), once a study is declared “Exempt” from further IRB review, the study remains exempt for the life of the study. No amendment is required for an exempt study. However, if the PI determines that there has been a substantive change to the project that may result in alteration of the IRB review classification, the PI must notify the IRB and may be required to submit a new package in IRBNNet.

Substantive changes could include, but may not be limited to,
- New knowledge that increases the risk level
- Use of methods that do not meet the exempt criteria
- Surveying or interview children or participating in activities being observed
- Change in the way identifiers are recorded so that participants can be identified
- Addition of an instrument, survey questions, or other change in instrumentation that could pose more than minimal risk
- Addition of vulnerable populations
- Under certain circumstances, addition of a funding source

Exempt studies do not expire and do not undergo continuing review. However, the PI is required to submit a Closure Report Form to the IRB once the study is completed.

Please be advised that any subject complaints, unanticipated problems, or adverse events that occur are to be reported to the IRB as soon as practicable, but no later than 3 business days following the occurrence. Please use the Event Report Form to submit information about such events.

Should you have questions regarding this determination, please contact the Research Integrity unit of the Office of Research and Sponsored Programs by emailing IRB@unf.edu or calling (904) 620-2455.
NOTE: This information was be collected via an electronic survey distributed on Qualtrics

- Age
- Race
- Gender
- Sexual Orientation
- Grade
- Zip Code
- State
- What type of high school did you attend? (virtual, private, public, suburban, rural, etc.)
- What year did you graduate high school?
- Have you ever been a victim of any type of school violence?
- Have you ever experienced any violence outside of the school setting?
- Have you been directly affected by any sort of school shootings?
- On a scale of 1-5 how much of a threat do you consider school shootings?

Please list seven school safety measures you have noticed in your school in relation to active shooter situations.

(Please list and describe as many as eight)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
</tbody>
</table>
Please list seven statements about how your experiences as a student were impacted while in high school by the school safety measures you have listed.

(Please list and describe as many as eight)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX F – CONCOURSE STATEMENTS

A Compressive List of All Concourses Statements and the Sorting Process that resulted in the Q-set Statements.

1. Noticed big changes on campus
   a. I noticed big changes in my school as a result of efforts to make it more safe.

2. The school felt less safe during after school events, rehearsing, etc.
   a. During afterschool events, like rehearsals and sports practices, I felt less safe than during the normal school day. (2)

3. It was set of skills—something learned

4. You didn’t want to do it but you had to learn the routine
   a. I didn’t want to do it, but I knew we had to learn the routine to plan for if something were to occur. (4/87)

5. Stressful/ Extra stress added

6. Students had anxiety attacks during drills

7. Students weren’t taking it seriously

8. I’m big on safety so I didn’t mind it (doing the drills)

9. Some teachers were by the book and made everyone go to the corner and checked names
   a. Some teachers took it more seriously and were by the book while some teachers didn’t do anything at all. (9/43/29)

10. Some teachers could be more calming and soothing
11. The hand Simulations (banging on doors)
   a. I noticed the school put a lot of effort into making the drills feel real (11/12)

12. Yea they wanted to make sure and give a more serious feel to it (the code red drill)

13. They (school staff) would tell us it’s a drill so they’d (the students) know

14. Break-in instruction
   a. Drills disrupted the learning that took place during our classes. Some teachers viewed it like this too. (42/91/57/14)

15. Metal detectors and drills reminded us of the very real possibility of a shooting happening

16. During the drill there is always a 10 min realization that something can happen, but I forget about it after

17. Some didn’t know it was drill—40-50% of students thought there was a serious threat on campus.

18. It was scary

19. People broke down emotionally and were texting parents

20. That day I couldn’t get it out of my mind (after the drill)

21. When you scare kids, it’s hard to move on with your day.

22. Super abrupt after it finished like they expected us to go back to business.

23. No processing time.
24. Odd experience that a lot of other people didn’t understand that it was a drill and a lot of people were disturbed by it.

25. A lot of questioning as to why they (the students) had to

26. Annoyance

27. Didn’t think it was beneficial

28. Drills aren’t executed the way they were designed to be:
   a. Drills weren’t always executed the way they were designed to be, it depended on the teacher. (28/50)

29. Some classes don’t even do anything at all.

30. I noticed no impact on culture or climate of school except for how schools were visibly “hardened.” (e.g. metal detectors and police officers) (30/15)

31. Numbs out and blocks out thoughts of the threat because of day to day hardening.
   a. The constant presence and reminders that the school has been “hardened,” somehow caused me to numb out and block out thoughts of threats.

32. No one feels comfortable talking about this topic because it could happen.
   a. This topic was so uncomfortable, that my friends and I never even discussed it. (32/45)

33. Something we have to prep for and plan for, but no one wants to talk about.

34. It was routine code red drills
   a. It kind of became normalized the more we engaged in routine code red drills. (34/68)
35. I didn’t feel like I was in danger

36. Everybody knew we had to prepare
   a. Everybody seemed to share the belief that we had to prepare for a threat, so the risk wasn’t ignored or downplayed. (36/79)

37. Long lines due to searches made kids nervous
   a. Certain safety measures, like long lines due to security searches after a recent school schooling, would make me nervous for the rest of the day.

38. It wasn’t handled well.

39. Not really discussed in classes by teachers or admin.

40. I feel every teacher should discuss drills in classes but they don’t.

41. Teachers go through motions but are not comfortable with talking about it
   a. Teachers go through motions during the drills, but very few were comfortable with talking about them before or after. (41/40/33/39)

42. Some teachers saw it as a disruption to their class.

43. Some teachers took it more seriously than others.

44. When things are real teachers do it differently than when it’s a drill.

45. School safety measure weren’t something we really talked about amongst friends because it was uncomfortable.

46. I didn’t like being reminded that these mass shootings could happen
47. I tried to limit my thinking of the threat of violence by blocking it out any time other than code red drills. (16)

48. The increase in school safety measure felt like an annoyance. (48/26)

49. I questioned the benefit of many of the precautions and drills (27/95)

50. Drills weren’t always executed like they should have been. It depended on the teacher.

51. The drills and precautions were a reminder that these shootings could happen here.

52. Sometimes other students would breakdown emotionally.

53. After a code red drill I couldn’t get it off of my mind to focus on school work.

54. Teachers would often want to move on abruptly back to class content without processing.
   a. After a drill, teachers would abruptly move back to business, even though it was difficult for us to regain focus on schoolwork. (54/53/22/21/23)

55. Teachers didn’t always seem to recognize these drills were traumatic for students

56. The unknown and uncertainty during code red drills were difficult for me. (56/78)

57. Disruptions to the class

58. Safety measures made me feel more on edge throughout the school year, adding stress to my year. (5/58/61)

59. No one process these experiences as far as our emotional reactions went.
a. No adults in our lives, in school or out, seemed to acknowledge or try to process our emotional reactions to code red drills.

60. I understood that the routine drills were important for protecting our safety.

61. They made me more nervous.

62. Safety measures were only talked about briefly or in depth in wellness trainings.

63. Over the years it seemed like safety measures became more lax.

64. Judgement does come with concern. The staff in scary situations are likely to stereotype a. I worried that teacher biases were more likely to be more apparent in scary situations that were brought on by safety drills. (64/65/66/67)

65. Staff being the enforcers, kinda made the rules. Who was going to stop them at this point

66. They write whatever they want about you and put it online and then into a vanilla folder and boom, your record is affected.

67. Faculty and staff can often hold grudges or favoritisms over students. Mind you They control events, special occasions and etc.

68. It kind of became normalized the more we did it

69. My experience was good in school, and I was lucky to have a good teacher who cared for me and was there for me every time we had a drill. a. I felt lucky to have a couple of good teachers who cared for us during the drills by providing calming and soothing support (69/10)
In our practice drills that we would have, I remember it was a bit of a traumatic experience.

When we weren’t sure they were drills, it could be terrifying. Some people broke down emotionally. (52/71/6/19/24)

The emotional impact of school safety drills (e.g. code red) stayed with me long after the drill was over. They were traumatizing. (20/18/70/75/77)

The increase in school security (e.g. locked doors, covered windows, etc.) made me feel trapped or caged in at times.

Constant reminder that schools aren’t safe

a. I didn’t like being constantly reminded that schools were unsafe. (74/46)

It’s scary to have to even learn how to protect yourself if that happened

When I knew other students were upset or worried I didn’t know how to help them.

It was traumatizing

during code red drills the unknown and uncertainty were difficult.

Felt like the risk wasn’t being ignored or downplayed

The videos they show about shootings for mental health week were broad and not that informational. I don’t even remember the scope of one of the videos I saw anymore.

a. The cookie-cutter training and education about safety measures that were provided by my school district were so vague that I questioned their usefulness. (80/62)

Our school was sometimes too casual about the threats and risks.
a. Over the years it seemed like safety measures became more relaxed, and our school was being too casual about the risk of threats (81/63).

82. There were nearly no safety measures or plan for shooting until my senior year of high school.

83. we didn’t take it as serious as I know we probably should have—kind of like how we walk instead of run during fire drills, because it’s not like we were in any immediate danger.

  a. Students didn’t take it as serious as I know we probably should have—kind of like how we walk instead of run during fire drills, because it’s not like we were in any immediate danger. (83/7)

84. for students who were in and out of the school frequently it could be frustrating.

85. I felt our school safety drills (code red) were disorganized or chaotic.

  a. I felt our school safety drills (code red) were disorganized or chaotic. I was never sure what to do, or where I should go, or where I should be in the school (25/85/86).

86. during drills I was never sure where I should go or be in the school

87. aware of what the plan was if something were to occur

88. The drills felt useless and stupid. They would require us to hide instead of teaching us how to fight for our lives when it came down to it.

89. When it comes to a real shooting, I’d rather try to escape then stay locked up in a classroom waiting for my death.

90. I knew school safety drills were important
a. I knew school safety drills were important for protecting our safety. I viewed them as a set of skills that needed to be learned. (90/60/8/3)

91. It disrupted class time whenever there was a drill

92. Schools need to have more security and prepare their students for the harsh reality of shootings happening
   a. I felt my school needed to have even more security than it did.

93. The drills made me feel like a shooting at my school was inevitable.

94. The more we practiced drills and precautions, the more I felt a shooting was inevitable. (94/93/51)

95. It did nothing
APPENDIX G – Q-SORT RECRUITING EMAILS

Hello-

You are invited to participate in research exploring your perceptions of K-12 school safety measures considering the increased occurrences of mass school shootings, like Uvalde and the most recent incident at the University of Virginia. I am looking for recent high school graduates that are 18 years or older and enrolled in ANY institution of high education to participate in research study that I am conducting to fulfill a requirement of my doctoral studies in Education Leadership at the University of North Florida.

If you, or anyone you know that fit the criteria above, and would be interested in providing their opinions reading school safety measures implemented in the K-12 setting given the recent increase in mass school shootings, please send them this email and the link to the online survey. You can find the link to the study by clicking on THIS hyperlink.

This study is approved by the University of North Florida Institutional Review Board (IRB#1460535-1). This will be the second part of a two-part study and should only take about 15 minutes. If you have any questions regarding this study, please contact me via email at Marie.ann.farjian@UNF.edu or my dissertation chairperson Dr. Sophie Filibert at so.filibert@unf.edu. If you have any questions regarding your rights as a research participant, please contact, Institutional Review Board at the University of North Florida, irb@unf.edu or 904-620-2498.

Thank you for your time,

Marie Farjian, M.S., N.C.C.
Doctoral Candidate, University of North Florida
Marie.ann.farjian@UNF.edu
## APPENDIX H – UNROTATED FACTOR MATRIX

Table A3

*Unrotated Factor Matrix*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
<th>Factor 5</th>
<th>Factor 6</th>
<th>Factor 7</th>
<th>Factor 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>059G</td>
<td>0.83022</td>
<td>0.35407</td>
<td>0.00618</td>
<td>0.13136</td>
<td>-0.11295</td>
<td>0.1134</td>
<td>-0.16382</td>
<td>0.01412</td>
</tr>
<tr>
<td>0AY1</td>
<td>0.4162</td>
<td>0.49353</td>
<td>-0.36214</td>
<td>0.07578</td>
<td>0.0438</td>
<td>-0.39937</td>
<td>0.00195</td>
<td>-0.28622</td>
</tr>
<tr>
<td>0LWT</td>
<td>0.25274</td>
<td>0.42047</td>
<td>0.3169</td>
<td>0.03163</td>
<td>-0.00635</td>
<td>-0.37689</td>
<td>-0.30872</td>
<td>-0.0394</td>
</tr>
<tr>
<td>0TIJ</td>
<td>-0.22242</td>
<td>0.29975</td>
<td>0.41485</td>
<td>0.23658</td>
<td>-0.26971</td>
<td>0.05931</td>
<td>0.01124</td>
<td>0.15677</td>
</tr>
<tr>
<td>14Q5</td>
<td>-0.69424</td>
<td>0.17972</td>
<td>-0.09092</td>
<td>0.18099</td>
<td>0.14874</td>
<td>0.15316</td>
<td>-0.10432</td>
<td>-0.10029</td>
</tr>
<tr>
<td>2BF3</td>
<td>0.79936</td>
<td>0.18881</td>
<td>0.211</td>
<td>-0.24706</td>
<td>-0.11198</td>
<td>0.04708</td>
<td>0.14319</td>
<td>-0.01887</td>
</tr>
<tr>
<td>210D</td>
<td>-0.04643</td>
<td>0.39387</td>
<td>0.52446</td>
<td>0.36442</td>
<td>0.10986</td>
<td>0.07543</td>
<td>-0.25113</td>
<td>0.11619</td>
</tr>
<tr>
<td>2WO3</td>
<td>-0.2433</td>
<td>0.33922</td>
<td>-0.57467</td>
<td>-0.20173</td>
<td>0.07648</td>
<td>0.36433</td>
<td>-0.04191</td>
<td>0.18303</td>
</tr>
<tr>
<td>4MKC</td>
<td>0.0477</td>
<td>0.54492</td>
<td>-0.30617</td>
<td>0.39554</td>
<td>-0.20959</td>
<td>-0.10077</td>
<td>-0.1134</td>
<td>-0.0325</td>
</tr>
<tr>
<td>4TA6</td>
<td>-0.26841</td>
<td>-0.07101</td>
<td>0.31706</td>
<td>0.29701</td>
<td>0.16965</td>
<td>0.38403</td>
<td>-0.12597</td>
<td>0.37541</td>
</tr>
<tr>
<td>5IIN</td>
<td>0.80402</td>
<td>0.11641</td>
<td>0.06385</td>
<td>0.01822</td>
<td>0.09552</td>
<td>0.18959</td>
<td>-0.11798</td>
<td>-0.15306</td>
</tr>
<tr>
<td>5QHF</td>
<td>-0.09753</td>
<td>-0.05559</td>
<td>0.38944</td>
<td>0.71832</td>
<td>0.28548</td>
<td>-0.05196</td>
<td>0.0926</td>
<td>0.01416</td>
</tr>
<tr>
<td>6AB9</td>
<td>0.23747</td>
<td>0.17888</td>
<td>-0.03985</td>
<td>0.7002</td>
<td>0.23329</td>
<td>0.02857</td>
<td>0.17853</td>
<td>0.1726</td>
</tr>
<tr>
<td>6Q3Q</td>
<td>-0.22942</td>
<td>0.56709</td>
<td>-0.04633</td>
<td>-0.04111</td>
<td>-0.01635</td>
<td>0.25376</td>
<td>-0.04673</td>
<td>-0.00696</td>
</tr>
<tr>
<td>7D64</td>
<td>0.33593</td>
<td>0.39817</td>
<td>-0.23191</td>
<td>0.04374</td>
<td>0.42006</td>
<td>0.18897</td>
<td>0.17274</td>
<td>0.06849</td>
</tr>
<tr>
<td>7HSV</td>
<td>-0.27776</td>
<td>0.75719</td>
<td>-0.09571</td>
<td>-0.13955</td>
<td>0.21236</td>
<td>-0.08148</td>
<td>0.17683</td>
<td>0.09566</td>
</tr>
<tr>
<td>7J4R</td>
<td>-0.02388</td>
<td>0.25416</td>
<td>-0.22566</td>
<td>-0.13017</td>
<td>0.54965</td>
<td>-0.04058</td>
<td>0.02362</td>
<td>0.38996</td>
</tr>
<tr>
<td>8BFO</td>
<td>-0.30244</td>
<td>0.67352</td>
<td>-0.23735</td>
<td>0.05698</td>
<td>-0.08885</td>
<td>-0.0458</td>
<td>0.1869</td>
<td>0.02452</td>
</tr>
<tr>
<td>8QS7</td>
<td>0.57335</td>
<td>0.30637</td>
<td>-0.25867</td>
<td>-0.06686</td>
<td>-0.23175</td>
<td>-0.08347</td>
<td>-0.09055</td>
<td>-0.00886</td>
</tr>
<tr>
<td>9BLX</td>
<td>0.45327</td>
<td>0.26604</td>
<td>0.13371</td>
<td>0.32377</td>
<td>-0.1692</td>
<td>-0.11743</td>
<td>0.12526</td>
<td>-0.03426</td>
</tr>
<tr>
<td>BGFF</td>
<td>-0.36379</td>
<td>0.22167</td>
<td>0.32713</td>
<td>-0.40223</td>
<td>0.08148</td>
<td>-0.08561</td>
<td>0.37844</td>
<td>0.2978</td>
</tr>
<tr>
<td>BGPK</td>
<td>-0.71658</td>
<td>0.1303</td>
<td>0.27192</td>
<td>-0.29489</td>
<td>-0.27486</td>
<td>0.07543</td>
<td>-0.08268</td>
<td>-0.03969</td>
</tr>
<tr>
<td>CDR1</td>
<td>-0.11762</td>
<td>0.54491</td>
<td>-0.48849</td>
<td>0.12378</td>
<td>0.30073</td>
<td>-0.03712</td>
<td>-0.07012</td>
<td>-0.01367</td>
</tr>
<tr>
<td>D3OS</td>
<td>-0.02945</td>
<td>0.67329</td>
<td>-0.29182</td>
<td>0.29742</td>
<td>-0.22158</td>
<td>-0.14387</td>
<td>0.01531</td>
<td>0.13304</td>
</tr>
<tr>
<td>DJG</td>
<td>0.06394</td>
<td>0.13634</td>
<td>-0.19454</td>
<td>-0.0856</td>
<td>0.13466</td>
<td>-0.38078</td>
<td>-0.281</td>
<td>0.36041</td>
</tr>
<tr>
<td>DMO3</td>
<td>0.06204</td>
<td>0.2661</td>
<td>0.56452</td>
<td>-0.16724</td>
<td>0.0677</td>
<td>-0.07243</td>
<td>-0.52305</td>
<td>-0.0727</td>
</tr>
<tr>
<td>DRB3</td>
<td>-0.3489</td>
<td>0.4919</td>
<td>0.40588</td>
<td>-0.03363</td>
<td>0.19263</td>
<td>-0.06067</td>
<td>-0.19748</td>
<td>0.25652</td>
</tr>
<tr>
<td>EG79</td>
<td>-0.4794</td>
<td>0.56671</td>
<td>-0.03637</td>
<td>-0.04161</td>
<td>0.02062</td>
<td>0.30178</td>
<td>-0.15768</td>
<td>-0.09268</td>
</tr>
<tr>
<td>G9JL</td>
<td>-0.0265</td>
<td>0.56685</td>
<td>0.20619</td>
<td>0.10591</td>
<td>-0.1105</td>
<td>-0.13409</td>
<td>0.04126</td>
<td>-0.07433</td>
</tr>
<tr>
<td>HKLP</td>
<td>0.2434</td>
<td>0.30664</td>
<td>0.1207</td>
<td>-0.44339</td>
<td>-0.4172</td>
<td>0.03131</td>
<td>-0.09005</td>
<td>0.29193</td>
</tr>
<tr>
<td>HXPU</td>
<td>0.4557</td>
<td>0.57607</td>
<td>0.12003</td>
<td>-0.12941</td>
<td>0.07714</td>
<td>-0.02721</td>
<td>0.11153</td>
<td>0.31432</td>
</tr>
<tr>
<td>IQA8</td>
<td>-0.48715</td>
<td>0.50062</td>
<td>-0.16186</td>
<td>0.12741</td>
<td>-0.08929</td>
<td>-0.14367</td>
<td>-0.1135</td>
<td>0.04569</td>
</tr>
<tr>
<td>Participant</td>
<td>Factor 1</td>
<td>Factor 2</td>
<td>Factor 3</td>
<td>Factor 4</td>
<td>Factor 5</td>
<td>Factor 6</td>
<td>Factor 7</td>
<td>Factor 8</td>
</tr>
<tr>
<td>------------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td>IQU0</td>
<td>-0.46587</td>
<td>0.21912</td>
<td>0.44457</td>
<td>0.07973</td>
<td>0.42716</td>
<td>-0.16696</td>
<td>0.02644</td>
<td>0.2068</td>
</tr>
<tr>
<td>IQYA</td>
<td>-0.59674</td>
<td>0.35948</td>
<td>0.312</td>
<td>0.06974</td>
<td>-0.086</td>
<td>0.34545</td>
<td>0.16352</td>
<td>-0.1534</td>
</tr>
<tr>
<td>JM98</td>
<td>0.67317</td>
<td>-0.03959</td>
<td>-0.23891</td>
<td>0.02642</td>
<td>0.47431</td>
<td>0.14956</td>
<td>0.17658</td>
<td>0.00922</td>
</tr>
<tr>
<td>KXQD</td>
<td>-0.19051</td>
<td>0.03903</td>
<td>0.19043</td>
<td>0.22188</td>
<td>-0.05355</td>
<td>0.19374</td>
<td>0.27845</td>
<td>-0.36175</td>
</tr>
<tr>
<td>L1HG</td>
<td>0.2932</td>
<td>0.38434</td>
<td>0.356</td>
<td>0.27213</td>
<td>0.07108</td>
<td>-0.00801</td>
<td>-0.39868</td>
<td>-0.23145</td>
</tr>
<tr>
<td>LFJI</td>
<td>0.03389</td>
<td>0.19246</td>
<td>-0.13499</td>
<td>0.4156</td>
<td>0.08527</td>
<td>0.38909</td>
<td>0.16593</td>
<td>0.17075</td>
</tr>
<tr>
<td>LX00</td>
<td>0.11087</td>
<td>0.38921</td>
<td>-0.27069</td>
<td>-0.18749</td>
<td>-0.35559</td>
<td>-0.14912</td>
<td>0.4024</td>
<td>0.42009</td>
</tr>
<tr>
<td>MI0H</td>
<td>-0.31237</td>
<td>0.64701</td>
<td>0.11507</td>
<td>-0.31923</td>
<td>-0.02821</td>
<td>0.33279</td>
<td>0.16563</td>
<td>-0.15862</td>
</tr>
<tr>
<td>MZ3L</td>
<td>0.59755</td>
<td>0.16258</td>
<td>0.36084</td>
<td>0.2115</td>
<td>-0.21834</td>
<td>0.29011</td>
<td>-0.16348</td>
<td>0.21947</td>
</tr>
<tr>
<td>NDXS</td>
<td>0.17439</td>
<td>0.10355</td>
<td>0.3115</td>
<td>-0.6079</td>
<td>0.11717</td>
<td>-0.30571</td>
<td>0.11745</td>
<td>-0.18053</td>
</tr>
<tr>
<td>NUOD</td>
<td>-0.5449</td>
<td>0.36725</td>
<td>0.03713</td>
<td>0.32315</td>
<td>-0.19957</td>
<td>-0.47037</td>
<td>-0.05283</td>
<td>0.13761</td>
</tr>
<tr>
<td>O1ZW</td>
<td>-0.66965</td>
<td>0.38297</td>
<td>0.31764</td>
<td>0.08373</td>
<td>-0.03409</td>
<td>-0.02382</td>
<td>0.15883</td>
<td>-0.06578</td>
</tr>
<tr>
<td>ON6N</td>
<td>0.22048</td>
<td>0.32871</td>
<td>0.20881</td>
<td>-0.36136</td>
<td>-0.02697</td>
<td>0.04581</td>
<td>0.53363</td>
<td>-0.11554</td>
</tr>
<tr>
<td>PEFP</td>
<td>0.16525</td>
<td>0.69902</td>
<td>-0.03555</td>
<td>-0.04261</td>
<td>0.07105</td>
<td>-0.05744</td>
<td>-0.02826</td>
<td>-0.13173</td>
</tr>
<tr>
<td>POXO</td>
<td>-0.28266</td>
<td>-0.01233</td>
<td>-0.18533</td>
<td>0.58129</td>
<td>0.1356</td>
<td>-0.2462</td>
<td>0.20468</td>
<td>-0.32036</td>
</tr>
<tr>
<td>QDAB</td>
<td>0.50664</td>
<td>0.58024</td>
<td>0.27151</td>
<td>-0.04629</td>
<td>0.07897</td>
<td>0.02826</td>
<td>0.02759</td>
<td>-0.15697</td>
</tr>
<tr>
<td>QQVG</td>
<td>0.66263</td>
<td>0.4176</td>
<td>0.24032</td>
<td>-0.24142</td>
<td>0.11483</td>
<td>0.2219</td>
<td>-0.02406</td>
<td>-0.07471</td>
</tr>
<tr>
<td>R4QS</td>
<td>0.63396</td>
<td>-0.0874</td>
<td>0.42851</td>
<td>-0.13538</td>
<td>0.14934</td>
<td>-0.10305</td>
<td>-0.02673</td>
<td>0.06798</td>
</tr>
<tr>
<td>S612</td>
<td>-0.29036</td>
<td>0.62267</td>
<td>-0.18999</td>
<td>-0.21597</td>
<td>-0.07423</td>
<td>0.29219</td>
<td>-0.17334</td>
<td>-0.14696</td>
</tr>
<tr>
<td>SZGH</td>
<td>0.46442</td>
<td>-0.12676</td>
<td>0.04664</td>
<td>0.19234</td>
<td>-0.60871</td>
<td>0.05167</td>
<td>0.14048</td>
<td>0.23119</td>
</tr>
<tr>
<td>UEV3</td>
<td>0.53473</td>
<td>0.05464</td>
<td>-0.14837</td>
<td>0.6782</td>
<td>-0.09594</td>
<td>-0.04102</td>
<td>0.15439</td>
<td>0.14306</td>
</tr>
<tr>
<td>UIPW</td>
<td>0.84166</td>
<td>0.20185</td>
<td>0.27823</td>
<td>-0.07494</td>
<td>0.03242</td>
<td>0.08567</td>
<td>0.00766</td>
<td>0.00804</td>
</tr>
<tr>
<td>UO9J</td>
<td>-0.28951</td>
<td>0.09788</td>
<td>0.26212</td>
<td>0.60903</td>
<td>-0.33821</td>
<td>0.08534</td>
<td>0.13769</td>
<td>-0.16898</td>
</tr>
<tr>
<td>V8HH</td>
<td>0.44419</td>
<td>0.18991</td>
<td>0.36927</td>
<td>0.04055</td>
<td>0.17915</td>
<td>-0.22567</td>
<td>0.35586</td>
<td>-0.30748</td>
</tr>
<tr>
<td>WZS5</td>
<td>0.33802</td>
<td>0.5422</td>
<td>-0.40196</td>
<td>-0.04561</td>
<td>0.12568</td>
<td>-0.06137</td>
<td>-0.08348</td>
<td>-0.22129</td>
</tr>
<tr>
<td>XSUR</td>
<td>-0.62534</td>
<td>0.41191</td>
<td>0.20674</td>
<td>-0.20302</td>
<td>-0.0312</td>
<td>-0.30971</td>
<td>0.14484</td>
<td>0.04823</td>
</tr>
<tr>
<td>Y168</td>
<td>0.67119</td>
<td>0.16584</td>
<td>-0.1731</td>
<td>0.18275</td>
<td>-0.13024</td>
<td>0.02414</td>
<td>-0.00451</td>
<td>0.17723</td>
</tr>
<tr>
<td>Y2ON</td>
<td>0.09887</td>
<td>0.66407</td>
<td>-0.11514</td>
<td>-0.09668</td>
<td>-0.15042</td>
<td>0.08458</td>
<td>0.02777</td>
<td>-0.19756</td>
</tr>
<tr>
<td>YJGT</td>
<td>0.13004</td>
<td>-0.19975</td>
<td>0.62243</td>
<td>0.10748</td>
<td>0.10602</td>
<td>-0.03789</td>
<td>0.33407</td>
<td>0.12956</td>
</tr>
</tbody>
</table>
APPENDIX I – FACTOR 1 ARRAY

Factor Array: Factor 1

<table>
<thead>
<tr>
<th></th>
<th>7</th>
<th>11</th>
<th>29</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>16</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>9</td>
<td>26</td>
</tr>
<tr>
<td>10</td>
<td>8</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>-4</td>
<td>-3</td>
<td>-2</td>
<td>-1</td>
</tr>
</tbody>
</table>

Most Unlike My Experience

<table>
<thead>
<tr>
<th>Most like My Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsere</td>
</tr>
</tbody>
</table>

Statements

1. I noticed big changes in my school as a result of efforts to make it more safe.
2. During after school events, like rehearsals and sports practices, I felt less safe than during the normal school day.
3. I didn’t want to do it, but I knew we had to learn the routine to plan for if something were to occur.
4. Some teachers took it more seriously and were by the book, while some teachers didn’t do anything at all.
5. I noticed the school put a lot of effort into making the drills feel real.
6. Drills disrupted the learning that took place during our classes. Some teachers viewed it like this too.
7. Drills weren’t always executed the way they were designed to be. It depended on the teacher.
8. I noticed no impact on culture or climate of school except for how schools were visibly “hardened” (Eg. metal detectors and police officers).
9. The constant presence and reminders that the school has been “hardened” made me numb.
10. This topic was so uncomfortable that even my friends and I never even discussed it.
11. It kind of became normalized the more we engaged in routine code red drills.
12. Everybody seemed to share the belief that we had to prepare for a threat, so the risk wasn’t ignored or downplayed.
13. Certain safety measures, like long lines due to security searches after a recent school shooting elsewhere, would r the rest of the day.
14. Teachers went through motions during the drills, but very few were comfortable with talking about them before or after.
15. I tried to limit my thinking of the threat of violence by blocking it out any time other than code red drills.
16. The increase in school safety measures felt like an annoyance.
17. I questioned the benefit of many of the precautions and drills.
18. After a drill, teachers would abruptly move back to business even though it was difficult for us to regain focus on
19. No one in the school seemed to recognize these drills were traumatic for students.
20. The unknown and uncertainty during code red drills were difficult for me.
21. Safety measures made me feel more on edge throughout the school year, adding stress to my year.
22. No adults in our lives, in school or out, seemed to acknowledge or try to help us process the emotional impact of code red drills.
23. I worried that teacher biases could become dangerous during the stressful situations school safety drills created.
24. I felt lucky to have a couple of good teachers who cared for us during the drills by providing calming support.
25. When we weren’t sure they were drills, it could be terrifying. Some people broke down emotionally.
26. The emotional impact of school safety drills (e.g. code red) stayed with me long after the drill was over. They were traumatizing.
27. The increase in school security (e.g. locked doors, covered windows, etc.) made me feel trapped or caged in at times.
28. I didn’t like being constantly reminded that schools were unsafe.
29. When I knew other students were upset or worried I didn’t know how to help them.
30. The cookie-cutter training and education about safety measures that were provided by my school district were so vague. I questioned their usefulness.
31. Over the years it seemed like safety measures became more relaxed and our school was being too casual about the risk of threats.
32. Students didn’t take it as serious as I know we probably should have—kind of like how we walk instead of run during fire drills, because it’s not like we were in any immediate danger.
33. I felt our school safety drills (code red) were disorganized and chaotic. I was never sure what to do, where I should go, or where I should be in the school.
34. The drills felt useless and stupid. They would require us to hide instead of teaching us how to fight for our lives when it came down to it.
35. I knew school safety drills were important for protecting our safety. I viewed them as a set of skills that needed to be learned.
36. I felt my school needed even more security than it had.
37. The more we practiced drills and precautions, the more I felt a shooting was inevitable.
APPENDIX J – FACTOR 2 ARRAY

Factor Array: Factor 2

<table>
<thead>
<tr>
<th></th>
<th>25</th>
<th>15</th>
<th>17</th>
</tr>
</thead>
<tbody>
<tr>
<td>37</td>
<td>22</td>
<td>34</td>
<td>29</td>
</tr>
<tr>
<td>26</td>
<td>31</td>
<td>9</td>
<td>36</td>
</tr>
<tr>
<td>23</td>
<td>28</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>33</td>
<td>10</td>
<td>14</td>
<td>24</td>
</tr>
<tr>
<td>-4</td>
<td>-3</td>
<td>-2</td>
<td>-1</td>
</tr>
</tbody>
</table>

Most Unlike My Experience | Somewhere in the middle or Unsure | Most Like My Experience

Statements
1. I noticed big changes in my school as a result of efforts to make it more safe.
2. During after school events, like rehearsals and sports practices, I felt less safe than during the normal school day.
3. I didn’t want to do it, but I knew we had to learn the routine to plan for if something were to occur.
4. Some teachers took it more seriously and were by the book, while some teachers didn’t do anything at all.
5. I noticed the school put a lot of effort into making the drills feel real.
6. Drills disrupted the learning that took place during our classes. Some teachers viewed it like this too.
7. Drills weren’t always executed the way they were designed to be. It depended on the teacher.
8. I noticed no impact on culture or climate of school except for how schools were visibly “hardened” (Eg. metal detectors and police officers).
9. The constant presence and reminders that the school has been “hardened” made me numb.
10. This topic was so uncomfortable that even my friends and I never even discussed it.
11. It kind of became normalized the more we engaged in routine code red drills.
12. Everybody seemed to share the belief that we had to prepare for a threat, so the risk wasn’t ignored or downplayed.
13. Certain safety measures, like long lines due to security searches after a recent school shooting elsewhere, would make me nervous for the rest of the day.
14. Teachers went through motions during the drills, but very few were comfortable with talking about them before or after.
15. I tried to limit my thinking of the threat of violence by blocking it out any time other than code red drills.
16. The increase in school safety measures felt like an annoyance.
17. I questioned the benefit of many of the precautions and drills.
18. After a drill, teachers would abruptly move back to business even though it was difficult for us to regain focus on schoolwork.
19. No one in the school seemed to recognize these drills were traumatic for students.
20. The unknown and uncertainty during code red drills were difficult for me.
21. Safety measures made me feel more on edge throughout the school year, adding stress to my year.
22. No adults in our lives, in school or out, seemed to acknowledge or try to help us process the emotional impact of code red drills.
23. I worried that teacher biases could become dangerous during the stressful situations school safety drills created.
24. I felt lucky to have a couple of good teachers who cared for us during the drills by providing calming support.
25. When we weren’t sure they were drills, it could be terrifying. Some people broke down emotionally.
26. The emotional impact of school safety drills (e.g. code red) stayed with me long after the drill was over. They were traumatizing.
27. The increase in school security (Eg. locked doors, covered windows, etc.) made me feel trapped or caged in at times.
28. I didn’t like being constantly reminded that schools were unsafe.
29. When I knew other students were upset or worried I didn’t know how to help them.
30. The cookie-cutter training and education about safety measures that were provided by my school district were so vague. I questioned their usefulness.
31. Over the years it seemed like safety measures became more relaxed and our school was being too casual about the risk of threats.
32. Students didn’t take it as serious as I know we probably should have—kind of like how we walk instead of run during fire drills, because it’s not like we were in any immediate danger.
33. I felt our school safety drills (code red) were disorganized and chaotic. I was never sure what to do, where I should go, or where I should be in the school.
34. The drills felt useless and stupid. They would require us to hide instead of teaching us how to fight for our lives when it came down to it.
35. I knew school safety drills were important for protecting our safety. I viewed them as a set of skills that needed to be learned.
36. I felt my school needed even more security than it had.
37. The more we practiced drills and precautions, the more I felt a shooting was inevitable.
APPENDIX K - FACTOR 3 ARRAY

Factor Array: Factor 3

<table>
<thead>
<tr>
<th></th>
<th>23</th>
<th>33</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>36</td>
<td>29</td>
<td>22</td>
</tr>
<tr>
<td>26</td>
<td>5</td>
<td>10</td>
<td>37</td>
</tr>
<tr>
<td>25</td>
<td>12</td>
<td>35</td>
<td>15</td>
</tr>
<tr>
<td>13</td>
<td>20</td>
<td>2</td>
<td>19</td>
</tr>
<tr>
<td>-4</td>
<td>-3</td>
<td>-2</td>
<td>-1</td>
</tr>
</tbody>
</table>

Most Unlike My Experience  Somewhere in the middle or Unsure  Most Unlike My Experience

Statements

1. I noticed big changes in my school as a result of efforts to make it more safe.
2. During after school events, like rehearsals and sports practices, I felt less safe than during the normal school day.
3. I didn’t want to do it, but I knew we had to learn the routine to plan for if something were to occur.
4. Some teachers took it more seriously and were by the book, while some teachers didn’t do anything at all.
5. I noticed the school put a lot of effort into making the drills feel real.
6. Drills disrupted the learning that took place during our classes. Some teachers viewed it like this too.
7. Drills weren’t always executed the way they were designed to be. It depended on the teacher.
8. I noticed no impact on culture or climate of school except for how schools were visibly “hardened” (Eg. metal detectors and police officers).
9. The constant presence and reminders that the school has been “hardened” made me numb.
10. This topic was so uncomfortable that even my friends and I never even discussed it.
11. It kind of became normalized the more we engaged in routine code red drills.
12. Everybody seemed to share the belief that we had to prepare for a threat, so the risk wasn’t ignored or downplayed.
13. Certain safety measures, like long lines due to security searches after a recent school shooting elsewhere, would r
the rest of the day.
14. Teachers went through motions during the drills, but very few were comfortable with talking about them before
or after.
15. I tried to limit my thinking of the threat of violence by blocking it out any time other than code red drills.
16. The increase in school safety measures felt like an annoyance.
17. I questioned the benefit of many of the precautions and drills.
18. After a drill, teachers would abruptly move back to business even though it was difficult for us to regain focus on
19. No one in the school seemed to recognize these drills were traumatic for students.
20. The unknown and uncertainty during code red drills were difficult for me.
21. Safety measures made me feel more on edge throughout the school year, adding stress to my year.
22. No adults in our lives, in school or out, seemed to acknowledge or try to help us process the emotional impact of code red drills.

23. I worried that teacher biases could become dangerous during the stressful situations school safety drills created.

24. I felt lucky to have a couple of good teachers who cared for us during the drills by providing calming support.

25. When we weren’t sure they were drills, it could be terrifying. Some people broke down emotionally.

26. The emotional impact of school safety drills (e.g. code red) stayed with me long after the drill was over. They were traumatizing.

27. The increase in school security (Eg. locked doors, covered windows, etc.) made me feel trapped or caged in at times.

28. I didn’t like being constantly reminded that schools were unsafe.

29. When I knew other students were upset or worried I didn’t know how to help them.

30. The cookie-cutter training and education about safety measures that were provided by my school district were so vague. I questioned their usefulness.

31. Over the years it seemed like safety measures became more relaxed and our school was being too casual about the risk of threats.

32. Students didn’t take it as serious as I know we probably should have—kind of like how we walk instead of run during fire drills, because it’s not like we were in any immediate danger.

33. I felt our school safety drills (code red) were disorganized and chaotic. I was never sure what to do, where I should go, or where I should be in the school.

34. The drills felt useless and stupid. They would require us to hide instead of teaching us how to fight for our lives when it came down to it.

35. I knew school safety drills were important for protecting our safety. I viewed them as a set of skills that needed to be learned.

36. I felt my school needed even more security than it had.

37. The more we practiced drills and precautions, the more I felt a shooting was inevitable.
APPENDIX L - FACTOR 4 ARRAY

Factor Array: Factor 4

<table>
<thead>
<tr>
<th></th>
<th>5</th>
<th>12</th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>33</td>
<td>35</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>29</td>
<td>18</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>23</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>26</td>
<td>22</td>
<td>28</td>
<td>27</td>
</tr>
<tr>
<td>7</td>
<td>30</td>
<td>8</td>
<td>19</td>
</tr>
<tr>
<td>3</td>
<td>34</td>
<td>25</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>36</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td>17</td>
<td>6</td>
<td>21</td>
<td>32</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-4</td>
<td>-3</td>
<td>-2</td>
<td>-1</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Most Unlike My Experience | Somewhere in the middle or | Unsure | Most Unlike My Experience

Statements
1. I noticed big changes in my school as a result of efforts to make it more safe.
2. During after school events, like rehearsals and sports practices, I felt less safe than during the normal school day.
3. I didn’t want to do it, but I knew we had to learn the routine to plan for if something were to occur.
4. Some teachers took it more seriously and were by the book, while some teachers didn’t do anything at all.
5. I noticed the school put a lot of effort into making the drills feel real.
6. Drills disrupted the learning that took place during our classes. Some teachers viewed it like this too.
7. Drills weren’t always executed the way they were designed to be. It depended on the teacher.
8. I noticed no impact on culture or climate of school except for how schools were visibly “hardened” (Eg. metal detectors and police officers).
9. The constant presence and reminders that the school has been “hardened” made me numb.
10. This topic was so uncomfortable that even my friends and I never even discussed it.
11. It kind of became normalized the more we engaged in routine code red drills.
12. Everybody seemed to share the belief that we had to prepare for a threat, so the risk wasn’t ignored or downplayed.
13. Certain safety measures, like long lines due to security searches after a recent school shooting elsewhere, would make me nervous for the rest of the day.
14. Teachers went through motions during the drills, but very few were comfortable with talking about them before or after.
15. I tried to limit my thinking of the threat of violence by blocking it out any time other than code red drills.
16. The increase in school safety measures felt like an annoyance.
17. I questioned the benefit of many of the precautions and drills.
18. After a drill, teachers would abruptly move back to business even though it was difficult for us to regain focus on schoolwork.
19. No one in the school seemed to recognize these drills were traumatic for students.
20. The unknown and uncertainty during code red drills were difficult for me.
21. Safety measures made me feel more on edge throughout the school year, adding stress to my year.
22. No adults in our lives, in school or out, seemed to acknowledge or try to help us process the emotional impact of code red drills.
23. I worried that teacher biases could become dangerous during the stressful situations school safety drills created.
24. I felt lucky to have a couple of good teachers who cared for us during the drills by providing calming support.
25. When we weren’t sure they were drills, it could be terrifying. Some people broke down emotionally.
26. The emotional impact of school safety drills (e.g. code red) stayed with me long after the drill was over. They were traumatizing.
27. The increase in school security (Eg. locked doors, covered windows, etc.) made me feel trapped or caged in at times.
28. I didn’t like being constantly reminded that schools were unsafe.
29. When I knew other students were upset or worried I didn’t know how to help them.
30. The cookie-cutter training and education about safety measures that were provided by my school district were so vague. I questioned their usefulness.
31. Over the years it seemed like safety measures became more relaxed and our school was being too casual about the risk of threats.
32. Students didn’t take it as serious as I know we probably should have—kind of like how we walk instead of run during fire drills, because it’s not like we were in any immediate danger.
33. I felt our school safety drills (code red) were disorganized and chaotic. I was never sure what to do, where I should go, or where I should be in the school.
34. The drills felt useless and stupid. They would require us to hide instead of teaching us how to fight for our lives when it came down to it.
35. I knew school safety drills were important for protecting our safety. I viewed them as a set of skills that needed to be learned.
36. I felt my school needed even more security than it had.
37. The more we practiced drills and precautions, the more I felt a shooting was inevitable.
APPENDIX M - FACTOR 5 ARRAY

Factor Array: Factor 5

<table>
<thead>
<tr>
<th></th>
<th>23</th>
<th>2</th>
<th>32</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>21</td>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>27</td>
<td>26</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>35</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>-4</td>
<td>-3</td>
<td>-2</td>
<td>-1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>33</th>
<th>8</th>
<th>36</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>36</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>29</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Most Unlike My Experience  Somewhere in the middle or  Unsure  Most Unlike My Experience

Statements
1. I noticed big changes in my school as a result of efforts to make it more safe.
2. During after school events, like rehearsals and sports practices, I felt less safe than during the normal school day.
3. I didn’t want to do it, but I knew we had to learn the routine to plan for if something were to occur.
4. Some teachers took it more seriously and were by the book, while some teachers didn’t do anything at all.
5. I noticed the school put a lot of effort into making the drills feel real.
6. Drills disrupted the learning that took place during our classes. Some teachers viewed it like this too.
7. Drills weren’t always executed the way they were designed to be. It depended on the teacher.
8. I noticed no impact on culture or climate of school except for how schools were visibly “hardened” (Eg. metal detectors and police officers).
9. The constant presence and reminders that the school has been “hardened” made me numb.
10. This topic was so uncomfortable that even my friends and I never even discussed it.
11. It kind of became normalized the more we engaged in routine code red drills.
12. Everybody seemed to share the belief that we had to prepare for a threat, so the risk wasn’t ignored or downplayed.
13. Certain safety measures, like long lines due to security searches after a recent school shooting elsewhere, would make me nervous for the rest of the day.
14. Teachers went through motions during the drills, but very few were comfortable with talking about them before or after.
15. I tried to limit my thinking of the threat of violence by blocking it out any time other than code red drills.
16. The increase in school safety measures felt like an annoyance.
17. I questioned the benefit of many of the precautions and drills.
18. After a drill, teachers would abruptly move back to business even though it was difficult for us to regain focus on schoolwork.
19. No one in the school seemed to recognize these drills were traumatic for students.
20. The unknown and uncertainty during code red drills were difficult for me.
21. Safety measures made me feel more on edge throughout the school year, adding stress to my year.
22. No adults in our lives, in school or out, seemed to acknowledge or try to help us process the emotional impact of code red drills.
23. I worried that teacher biases could become dangerous during the stressful situations school safety drills created.
24. I felt lucky to have a couple of good teachers who cared for us during the drills by providing calming support.
25. When we weren’t sure they were drills, it could be terrifying. Some people broke down emotionally.
26. The emotional impact of school safety drills (e.g. code red) stayed with me long after the drill was over. They were traumatizing.
27. The increase in school security (Eg. locked doors, covered windows, etc.) made me feel trapped or caged in at times.
28. I didn’t like being constantly reminded that schools were unsafe.
29. When I knew other students were upset or worried I didn’t know how to help them.
30. The cookie-cutter training and education about safety measures that were provided by my school district were so vague. I questioned their usefulness.
31. Over the years it seemed like safety measures became more relaxed and our school was being too casual about the risk of threats.
32. Students didn’t take it as serious as I know we probably should have—kind of like how we walk instead of run during fire drills, because it’s not like we were in any immediate danger.
33. I felt our school safety drills (code red) were disorganized and chaotic. I was never sure what to do, where I should go, or where I should be in the school.
34. The drills felt useless and stupid. They would require us to hide instead of teaching us how to fight for our lives when it came down to it.
35. I knew school safety drills were important for protecting our safety. I viewed them as a set of skills that needed to be learned.
36. I felt my school needed even more security than it had.
37. The more we practiced drills and precautions, the more I felt a shooting was inevitable.