The Relationship Between Perceptions of Student Exposure to School Violence, School Safety and Marks in a Small Rural Manitoba School Division

By

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Abstract

Although there has been extensive research focused on school violence, very little research has been conducted on the relationship between perceptions of school violence and personal safety and perceived academic performance of students in rural areas. The primary purpose of this study is to investigate how self-reported perceptions of school violence and personal safety are related to perceived marks in math and ELA in a small rural Manitoba school division. Data were collected from two groups of students (Grades 4 to 6 and Grades 7 to 12) who completed different versions of the Canadian Public Health Association Safe School Survey (CPHA) and also answered questions prepared by the school division's Health and Safety Committee regarding their perceptions of individual math and ELA marks. The implications of the findings of this study for the school division are discussed and suggestions for future research are provided.

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CHAPTER 1: THE CONTEXT

Introduction

Past high-profile incidents of school violence, such as the shootings on April 20, 1999 in Columbine, Colorado, and on April 28, 1999 in Taber, Alberta, raised the issue of student safety in public schools. More recent incidents such as the Omaha, Nebraska shootings on January 5, 2011 continued to fuel the growing concern for school safety. Such incidents, although horrific, make up only a small part of a much larger social issue of school violence that encompass multiple physical and social behaviours within a school. These behaviours, ranging from low level to high level physical violence and from infrequent to frequent incidents of emotional violence, are now thought to be symptomatic of large and complex social problems (Akiba & Han, 2007) that permeate the climate of individual schools. These violent behaviours affect all students either directly as victims or perpetrators or indirectly as witnesses, non-participants, or members of a larger school community (Craig & Pepler, 2007; Swearer, Song & Cary, 2001). Regardless of the student role and involvement in these behaviours, school violence contributes to a climate of student fear and to the perception of an unsafe school and negative learning environment (Chen & Weikart, 2008).

In addition to the concern over school violence, there is an increasing body of evidence which demonstrates that students who are fearful of the school environment suffer as a result. According to Chirila (2012), who investigated the social and psychological implications of bullying in schools, the importance of the social group to the individual student increases when in school. Chirila argues that any factor that appears in the school environment has a significant impact on shaping the individual's development, including their academic development. According to Bosworth, Ford and Hernandaz (2011), if a student feels safe, it is easier for that student to learn. However, as bullying is a factor of the school environment, the violence affects both the

psychological and physical safety of students (Felix & McMahon, 2006) as well as academic performance. Lacoe (2012) supports the findings of Bosworth, Ford and Hernandaz. Lacoe concluded that a safe learning environment was necessary for productive learning. In addition, she found that when students did not feel safe in school, whether in the classroom or in other areas of the school, there was a constant negative correlation with scores on tests. These findings point to a conclusion that both school violence and personal safety, which are separate factors of the school environment, are correlated to student marks.

The Canadian Concern

The extent to which school violence impacts Canadian students can be seen in the survey results published by the World Health Organization. The World Health Organization (2010) conducted a survey of 11 and 13 year-old students in 35 countries. These countries (including Canada) were ranked (from “least” to “most”) according to reported incidents of bullying and victimization. For the 11 year olds, Canadian girls ranked 6th for victimization while the boys ranked 10th in the list of 35 countries. For the 13 year olds, Canada ranked 26th for boys and 27th for girls in reported incidents of bullying and victimization in the same list of 35 countries. Although the reported incidents in 2010 showed stable results in recorded incidents of bullying and victimizations compared to the 2002 survey results, Canada’s overall position for 11 and 13 year olds slipped internationally. Even with stable results, the more recent World Health Organization surveys (reported in www.prevnet.ca) positioned Canada in the lower half of the international rankings. This position indicates that the gains made in reducing incidents of bullying in other countries have not been replicated in Canada and that Canadian school children still experience significant exposure to school violence.

The results of the World Health Organization suggest that bullying and victimization are forms of school violence to which Canadian students are often exposed. These behaviours are not problems that only a few isolated individuals experience, but are behaviours that affect a much wider group. Other Canadian reports agree with the World Health Organization findings. The Canadian Council on Learning (CCL) in a report in 2008 stated that between 2% and 24% of Canadian youth are involved in school violence as victims, bullies or as bully/victims over the course of a month. In a study by Peterson and Ray (2006), it was found that between 10% and 15% of students are regularly involved in school violence as either a bully or a victim. Studies, such as those cited, point to the pervasiveness of the problem of school violence in Canadian schools.

Part of the concern over the pervasiveness of school violence has been the concern for the personal safety of students. As far back as 1994, in a Saskatchewan School Trustees Association document entitled *One Incident is Too Many: Policy Guidelines for Safe Schools,* it was stated that incidents which had previously gone unnoticed were being recognized as intimidating and sometimes illegal behaviours. At that time, attitudes of parents, students and communities were changing toward bullying incidents. They wanted the environment for all students to be safe, feel safe and be free of fear. Similar beliefs are presented in Manitoba's *Safe Schools Charter* (Government of Manitoba, 2004) and Ontario's *Safe Schools Policy and Practice: An Agenda for Action* (Government of Ontario,2006).

The Manitoba Concern

In Manitoba, during recent years, bullying behaviours and school violence have received frequent media coverage. Examples of such coverage were reported in the *Winnipeg Free Press.* On May 11, 2013, the *Winnipeg Free Press* reported that Prime Minister Harper heard stories from families about children lost to cyber-bullying and promised that his government would take action

to end the tragedies (Kusch, 2013). This was followed on November 19, 2013 with a report that the parents of Amanda Todd were on a cross-country trip to raise awareness of cyber-bullying and to tell the story of the tragic death of their daughter as a result of cyber-bullying (McIntyre, 2013). Along with such media coverage and with rising levels of concern, there was a demand for schools and government to take action to address these issues. This pressure for action on the part of the Manitoba Government led to the eventual passage, in 2004, of the Safe Schools Charter within the Public Schools Act. This Charter and the Public Schools Act were updated in 2013 to include a definition of Bullying and a Code of Conduct. Clause 41(1) (b.1) obligates school boards to "ensure that each pupil enrolled in a school within the jurisdiction of the school board is provided with a safe and caring school environment that fosters and maintains respectful and responsible behaviours". Clause 41 (1.6) requires School Boards to prepare a respect for human diversity policy that includes the obligation to "promote and enhance (i) a safe and inclusive learning environment". Also, Clause 47.1 (2) obligates schools to prepare a code of conduct that must include "a statement that pupils and staff must behave in a respectful manner" and a statement that lists unacceptable behaviour such as bullying and discrimination.

Implicit in these declarations of obligation for schools are two perspectives. First, there is the acknowledgment that school violence does exist and that its various forms (physical, cognitive, sexual, or psychological) do occur in our schools between members of the school communities. Second, creating a safe and inclusive environment is the means by which the issues of school violence are to be addressed.

The School Division Concern

The school division where the present study was conducted has run a variety of different programs to address the issues of school violence and personal safety within the schools of the

division. As an administrator within this division, I attended meetings with the administrators, trustees and superintendent where previous bullying survey results and goals and programs to address those results were discussed. The programs and efforts selected and implemented have been, primarily, blanket approaches that have been identical across the division for all students from Kindergarten to Grade 12 (e.g., wearing pink in support of the national anti-bullying movement, guest speaker presentations, and surveys). These approaches had been implemented to initiate and heighten awareness of the school violence problem and to reduce the costs of violence in terms of time and reduced attendance. The division wanted to know the amount of time used to investigate harassment complaints and to write incident reports resulting from those complaints. They also wanted to know the overall costs of absenteeism, transfer or drop-out rates resulting from damaged social relationships. Although the surveys were used to solicit information regarding the prevalence of violence within the schools, the relationship of school violence to the academic performance of students was not part of the initial division focus.

Currently, the school division is investigating school violence from a wider perspective. By their continued participation in the Tell Them From Me[1] on-line surveys (TTFM) and data collection, the division sees school violence as more than a series of nuisance or irritating incidents. Given the Manitoba Government mandate to provide safe schools, fostering school safety is a divisional priority identified on the division website. Because creating safe schools is part of the division plan, it appears that the school division views school violence as a multifaceted structural, social and academic issue that the division and schools must address with a focused and managed plan for intervention and attenuation.

This study has practical implications as well as ramifications for the school division through the actions of its administrators. The roles and responsibilities that follow are found in either the

publications found on the Manitoba Department of Education website under various titles or in minutes of monthly meetings of the division administrators. The administrators are responsible to support and oversee the effectiveness of program delivery to students as well as for the classroom and school contexts into which the program deliveries are made (Government of Manitoba, 2013a). The administrators are to use the data provided by surveys and any other data regarding perceptions of school violence as a base upon which to plan intervention strategies appropriate for the different grade levels of the schools (Administrator Minutes). These intervention strategies implemented are to address the perceptions of school violence held by students, staff, parents and community members (Government of Manitoba, 2006). They are to intervene to reduce the number of incidents of school violence at the various grade levels and any academic impacts resulting from those incidents (Government of Manitoba, 2004). The administrators are to defend the investment of time and human resources needed and used for staff training to effectively intervene when school violence occurs within the schools and the classrooms (Government of Manitoba, 2013b). The administrators are accountable for the future efforts to reduce school violence and to improve the academic performances of all students within the schools (Administrator Minutes). The results of this study could have significant impact on the strategies for resource usage and allocations within the schools of this school division and could be very helpful for administrators given their responsibilities.

The Researcher's Concern

My position regarding school violence and its impact on students and on perceived marks has evolved over time. My experiences as a student, parent, teacher, counselor and administrator have influenced my perspective of the violence issue.

When reflecting on an earlier time, I recalled an incident during my own high school years. This memory was related to my Grade 9 year of high school. A boy in my class was regularly harassed by some Grade 11 boys during the lunch periods and while walking to and from school. The incidents involved name calling, tripping, pushing, and chasing. At school, all the incidents took place under the supervision of the teaching staff who only reprimanded the Grade 11 students. Outside of school, no such interventions by staff occurred. The most alarming part of this recollection was the reaction of the by-standers, myself included. During lunch, while approximately 500 on-looking students would laugh and do nothing, a few others, including his friends and classmates, would join in, as participants, with the Grade 11 boys. For most students, these behaviours of the Grade 11 boys were viewed as harmless and innocent pranks; however, from my harassed classmate's perspective, they were neither harmless nor innocent.

My own high school experience with bullying served as a precursor to similar incidents as I changed locations and environments during the early stages of my teaching career. With each change in location, social context or professional role, perpetrators and victims of school violence remained. As time passed, and the numbers of victims and bullies continued, I noticed a pattern emerge. The names of a few individuals regularly cycled through the classroom and office reports of attendance problems, class disruptions, student conflicts, and academic underachievement. After 39 years of exposure to school violence, I have found that the names of bullies and victims linger on for a few years only to be replaced by new names. Though the names change, the bullies and victims seem to retain their respective roles and suffer the consequences of their involvement.

As a parent, teacher, counselor, and administrator, I have witnessed other patterns in school violence. As a parent, I witnessed bullying towards my own children by students with grudges against the school system. My children became victims because I was part of the school system and

this type of targeted treatment of my children by other students was viewed as one of the hazards of the job.

As a teacher, I taught at different grade levels in schools of different sizes. While teaching middle-year students, I observed that some of the perpetrators of physical and social violence one day were the victims on other days. As a high school teacher, I noticed that physical violence (demonstrated, witnessed, reported) occurred less frequently whereas social violence (harassing, isolating, name calling) increased. I regularly intervened as mild inappropriate remarks between students escalated from teasing to heated exchanges, with some exchanges spiraling upward to threats and physical violence. These disruptions affected entire classes or large segments of the student body, not just the students involved in the exchanges. As a counselor, I conducted mediation sessions between the perpetrators of violence and their victims after the incidents occurred. However, as a single counselor in a school with multiple issues, I spent more time putting out fires than I had available for fire prevention strategies.

As an administrator, I gained an understanding of the difference between violence as an incident and violence as an issue. Any adult intervention in specific incidents was not sufficient to either deter the behaviour of bullies or lessen the long-term impact on both perpetrators and victims. These interventions did not address either the underlying issues that perpetuated the violence or quell the perceptions of school violence held by students. Adult interventions in an incident served only to produce an interlude between successive events; they did not remedy the situation.

In my view all students, whether participating in school violence or witnessing its occurrence, develop a perception of how this violence affects their personal safety and how it contributes to the development of a climate of fear within their school. These perceptions, in turn,

influence how students function within the school environment. From these past reflections, my interest in school violence and its relationship to academic achievement peaked and led me along a convoluted path. In this study, I am investigating how perceptions of school violence and perceptions of safety influence perceptions of academic performance in math and English language arts (ELA).

My educational path began with one course in 2005 when I wanted something to do. I enrolled in a University of Manitoba psychology course. After receiving the course materials and upon preparing for the course, I read a number of articles about school violence. These articles intrigued me and motivated me to switch from one course to completing a Post-Baccalaureate with courses in counseling, psychology and special education in 2006. The completion of the Post-Baccalaureate provided with me with motivation to then pursue a Master of Education in Administration at the University of Manitoba. During that time as part of my course work, I developed a plan to address school violence through counseling and prepared a plan to carry out research to test my hypothesis. However, after completing the Masters in 2008, I also switched roles and positions and moved to a new school division. As I still had plans to further investigate school violence, I enrolled in the Master of Education program in Social Foundations at the University of Manitoba. My plan was to follow the thesis route and make a contribution to what is known about the relationship between school violence, personal safety and student academics.

Purpose of the Study

The four concerns outlined above (Canadian, Manitoba, school division, researcher) serve as the foundation upon which an investigation into the relationship between student grade level, school violence, personal safety and marks is built. Although the relationship of school violence and personal safety with actual academic performance has been investigated in large urban settings

(Benbenishty & Astor, 2005; Flecher, Chikobva & Lombard, 2008; Lacoe, 2012), more research is needed in rural Canadian contexts. It is this gap in the research on school violence that this study addresses.

As this research has several objectives, the investigation is conducted in stages. The first stage is to examine the nature of the data for school violence, personal safety and marks. The second stage is to uncover the relationships that perceptions of school violence and personal safety have on student perceptions of marks among a sample of elementary and high school students in rural Manitoba. Specifically, the intention is to investigate how perceptions of school violence and feelings of personal safety are related to perceptions of marks in both math and English language arts (ELA). The findings of this study can be used to guide the division in its efforts to provide a safe environment and to bring about improved academic performance.

Students in Grades 4 to 6 and Grades 7 to 12 responded to a one time administration of the Canadian Public Health Association Safe School Survey[2] (CPHA), that is part of an online assessment toolkit for bullying and harassment, and an academic questionnaire produced by the school division's Health and Safety Committee (see Appendix A). Selected items from the CPHA Safe School Survey were used to gather data about the bullying behaviours reported by students as directed towards the student or others (see Appendix B and C). The student responses to some of the survey items were used to determine the perceptions of school violence through student reports of exposure to and participation in school violence. In addition, items from the survey were used to gather data about student feelings of personal safety within their respective schools (see Appendix D and E). Student responses to some of the survey questions were used to determine the perceived levels of threat to personal safety felt by students. At the same time, an academic and behavior

questionnaire prepared by the Health and Safety Committee was issued to collect responses to questions regarding student perceptions of their marks in both math and ELA (see Appendix A).

Data about school contexts were collected from two additional sources. Data regarding school enrollment at the various schools of the division were provided by the school division website. Data about community composition were retrieved from Statistics Canada (2011).

In the analysis, the surveys were separated into two groups according to the CPHA survey completed. For each grade level group, the perceptions of school violence and perceptions of personal safety were compared to perceptions of math and ELA marks. These comparisons suggest how the students' perceptions of school violence and/or perceptions of personal safety are related to math or ELA marks.

Definition of Terms

For the purposes of this research, the terms: "exposure to school violence", "perceived threat to personal safety" and "math and ELA marks" have specific definitions. These definitions of the terms used serve as a guide and a boundary for the research that follows.

Exposure to school violence has three perspectives—as a perpetrator, as a victim and as a witness to incidents of violence. The CPHA Safe School Survey (2004b) describes bullying behaviour within the surveys—page 5 of the Grades 7 to 12 and page 4 of the Grade s 4 to 6 survey. Each survey focuses on three main types of violent behaviour. First, a student acts or threatens to act in violent physical ways such as hitting or pushing students or objects or making gestures in a threatening manner towards other students. Second, a student is emotionally violent towards other students by making verbal comments that ridicule, demean, or degrade other students or by making comments using internet, e-mail, phone or cellular phone text messages. Third, a student is socially violent by acting in ways that exclude some students from interacting with other students.

Perceived threat to personal safety has two perspectives—feelings of safety and fear of victimization. In the CPHA Safe School Survey, the perspective of safety is a summative evaluation of a student's feelings of personal safety in various locations at school or while engaging in school activities. Second, a student feels afraid that he/she might personally experience school violence as defined above.

Math and ELA marks have one perspective—a student's subjective evaluation of feedback concerning his/her individual performance in math and ELA. In the survey of the Health and Safety Committee, mark response options, matched with letter grade response options, were provided from which students selected their perceptions of performance levels in both math and ELA.

Delimitations

The delimitations, that were placed by the researcher on the study, center on the site, secondary analysis of data, perspectives of marks in math and ELA and grade levels of students completing the surveys.

The site of the research is a small rural school division where concerns over incidents of school violence and victimization have bubbled for many years. The school division had previous experience with various divisional surveys collecting data on bullying and victimization. It had recently included mark perceptions in their data collections. The purpose of these surveys was to create awareness of bullying behaviours and consequences and through that awareness, reduce the number of incidents of bullying.

The study design includes an analysis of the data that had been previously collected and analyzed by the school division. The school division's Health and Safety Committee had collected and analyzed the data to determine the frequencies of reported school violence and personal safety

and perceptions of marks. To acquire the desired information, they used the CPHA Safe School Survey and a Health and Safety Committee questionnaire. Included on the questionnaire were questions on mark perceptions for ELA and math. Thus, the data collected by the school division provided the information of interest for this research. However, in contrast to much of the literature which typically centers of primary, middle or high school years, these surveys divided the students into just two groups (Grades 4 to 6 and Grades 7 to 12).

In the current study, perceptions for marks, rather than actual marks, were selected for a variety of reasons. First, the school division had already collected the data based upon perceptions. Second, according to Haye, Swearer and Miller (2009) when the school climate was examined, it was the student's perceptions of school climate that was being investigated. These perceptions according to the authors could be influenced by experiences both past and present that occurred within the environment. Gordon (2013) when writing about perceptions, assumptions and expectations in relationships between people stated that perceptions create a person's reality. Although the perceptions may be true, the perceptions are not necessarily the actual condition of the perceiver. He stated that external influences experienced by the individual and the internal dialogues of the individual shape an individual's perceptions. Thus, it is interactions of the school violence with the internal dialogues that shape the perceptions of school violence, personal safety and marks. Although other factors such as motivation and self-efficacy may contribute to student perceptions of marks, it is only the perceptions of school violence and personal safety that are investigated.

The grade levels selected were Grades 4 to 12. These grade levels coincided with the grade levels suggested to complete the survey by the Canadian Public Health Association. These were also the grade levels that the school division chose to survey because students at the younger grades

and ages would not be able to understand the questions posed and the options provided for responses.

Research Questions

There are four research questions investigated in this study. These questions and hypotheses were prepared to address the stated purposes of the research. Though schools in a small rural school division are used in this study, the hypotheses are based on the results of previous studies that linked school violence to academic performance in urban centers (Benbenishty & Astor, 2005; Flecher et al., 2008; Juvonen, Nishina, & Graham, 2000). These studies indicated that exposure to school violence had both short- and long-term implications for the academic achievement of students. Given the lack of research linking perception of school violence or personal safety in rural areas to perceived marks, this study will address this need.

The questions guiding this research are as follows:

a) What is the relationship between the perceptions of school violence and the perceptions of marks in math for Grades 4 to 6 and for Grades 7 to 12? It is hypothesized that for each grade grouping, as the perceptions of school violence increase, the perceptions of marks in math will decrease.

b) What is the relationship between the perceptions of perceived safety and the perceptions of marks in math for Grades 4 to 6 and for Grades 7 to 12? It is hypothesized that for each grade grouping, as the perceptions of personal safety increase, the perceptions of marks in math will increase.

c) What is the relationship between the perceptions of school violence and the perceptions of marks in ELA for Grades 4 to 6 and for Grades 7 to 12? It is hypothesized that for

each grade grouping, as the perceptions of school violence increase, the perceptions of marks in ELA will decrease.

d) What is the relationship between the perceptions of personal safety and the perceptions of marks in ELA for Grades 4 to 6 and for Grades 7 to 12? It is hypothesized that for each grade grouping, as the perceptions of personal safety increase, the perceptions of marks in ELA will increase.

Chapter Summary

In the first chapter, the current view of school violence as a social problem that impacts students around the globe was presented. This view was followed by an outline of the degree to which Canadian students are exposed to violence. Next, the approach by the Manitoba Government and the school division to address the impact of school violence and personal safety of students was outlined. This was followed by an outline of the researcher's position in the research process. Last, the purpose of the study, definitions of terms, delimitations and research questions completed the first chapter. The next chapter examines the literature regarding the nature of school violence and personal safety and their relationships to academic performance.

CHAPTER 2: A REVIEW OF LITERATURE

Introduction

In this chapter, the literature, as it pertains to the way that school violence and personal safety are related to academic performance, is examined. In the first section, the strategies and descriptions of the internet searches including the databases used and the search criteria are described. The second section examines the significance of school violence. The last section outlines the nature of school violence and the patterns of relationships demonstrated between academic performance and school violence and safety within the school contexts.

Internet Research Strategies and Descriptions

With the coming of the capability for online research via the internet, it is important that the search process be outlined and its use be recognized. For this investigation, there were three areas of search.

Keywords used in each of the searches were: school violence, bullying, victimization, elementary students, high school students, middle-years students, rural, small school, academic performance and marks. Articles were first selected based upon the criteria of relating grade level with school violence and marks and grade level with personal safety and marks.

1. University of Manitoba library @http://umanitoba.ca/libraries/. The databases searched were EBSCOHost, ProQuest. Under advanced search, I chose terms and combinations of terms listed above. These searches provided links to articles which were screened for relevance.
2. Questia @www.questia.co[3]. I selected “Search the Library” which led to a page for filtered searches for articles. The terms used in the searches were the same as for the University of Manitoba Libraries searches.

3. PREVnet @ http://prevnet.ca/.[4] I selected tabs for bullying facts, resources and research.

Significance of School Violence

This section outlines the current public perception about school violence, the need for an expanded definition, the natures of school violence and personal safety, and, in addition, the relationships of school violence to marks and personal safety to marks are investigated.

Public Perspective

Although the work of many researchers, located in many different countries, has added layer upon layer to the understandings about school violence and its impacts, there are still myths about school violence. These myths downplay bullying as violence (Stop Bullying! Canada!, 2014) or relate school violence to shootings and weapon use (Love Our Children, USA, 2014). These perceptions that downplay bullying as school violence, arguing that school violence usually involves shootings and weapons, are inaccurate. While shootings and weapons use do occur, this level of violence is rare (Dinkes, Cataldi, & Lin-Kelly, 2007). Because the myths about bullying still exist, many websites such as PREVnet (PREVnet, 2014a) and Stop Bullying! Canada! call on their readers to take action to stop bullying. These sites state that student exposures to social and physical assaults and to personal violations continue within schools. Because of the current public concerns, provincial governments have taken political action such as the Manitoba Safe School Charter (Government of Manitoba, 2004, 2013) and *Safe schools policy and practice: An agenda for action* (Government of Ontario, 2006) and research studies (Kowalski & Limber, 2012; Mitchell, Longhurst & Jacob, 2008) have been undertaken to address these issues of school violence.

Although most physical bullying in schools does not turn into extreme violence, there lies behind the many cases of school violence a history of peer victimization and regular exposure to

negative social environments. It is these less severe but frequent and repetitive acts of physical violence, combined with dehumanizing emotional violence (Ellickson & McGuigan, 2000; Mitchell et al., 2008; Wilbert, 2002) and/or sexually-motivated violence (Espelage & Holt, 2007), that are related to student wellbeing and academic performance. It is this description of school violence that points to the need for an expanded definition of school violence.

Expanded Definition

As the issue of school violence has come to the public forum (e.g. Manitoba Safe School Charter, PREVnet and Stop Bullying! Canada!), there has been a demand for research to investigate the factors that contribute to school violence. Over the years, the various behaviours that contributed to school violence have been studied under a variety of different labels. The labels used to categorize this overlapping collection of behaviours are terms such as antisocial behaviour (Mcevoy & Welker, 2000), aggressive behaviour (Pellegrini & Bartini, 2001), bullying or mobbing (Beran & Tutty, 2002), relational violence (Crick & Grotpeter, 1995), peer victimization (Espelage & Swearer, 2003), sexual harassment (Espelage & Holt, 2007) and electronic bullying (Kowalski & Limber, 2012). These terms, each unique to their respective studies, were used to categorize and describe interactions between students. These overt and covert interactions contribute either directly or indirectly to an atmosphere of fear and/or a negative learning environment (Luiselli, Putnam, Handler & Feinberg, 2005).

Because of the breadth of the descriptions, the use of many similar descriptors by various authors and the expanding use of technology and social media, a more inclusive definition of school violence has evolved. Instead of describing only the specific contextual behaviours, the definition of school violence has been expanded to more fully understand the operations and impacts of violence. Olweus (2003) included, in his definition, observable physical actions of pushing or

shoving another student or object, punching walls or using gestures; verbal actions such as threats and intimidation, as well as the covert social actions of excessive teasing, gossip, exclusion or isolation, name calling, social rebuke, or harassment. To extend Olweus's definition to better reflect the current social climate, an electronic version of bullying or cyber-bulling has been included (Kowalski & Limber, 2012). By using the expanded definition as defined on page 11, a greater understanding of the nature and implications of school violence on student academic performance can be investigated.

With this expanded definition setting the frame for investigation, research that contributed to the understanding of school violence in a variety of different contexts is reviewed. The literature review begins with an examination of the nature of the school environment. The review continues with an outline of how student grade level, school violence and personal safety may be related to marks.

Nature of School Violence

This section begins by examining school violence and personal safety as two separate issues operating within the school environment. Next, the patterns of change in behaviour are outlined by age and intent.

Separate Factors

In an Israeli report by Benbenishty, Astor, and Zeira (2003), the authors observed that school violence and the perception of safety, though together in the environment, operate separately. They stated that when students observed harassment, fights and drug use, the students were more likely to rate the school as having a serious violence problem. However, they found that it was the direct personal violence experienced, not the observed violence that moved the students to indicate they felt a threat to their personal safety. Cowie and Oztug (2008), in their report, stated

that when students were fearful of violence, they missed school to avoid the violence. Such findings point to school violence and personal safety as separate factors within the environment that act independently and contribute to student perceptions of the environment.

It is understood that school violence happens; however, how often it is experienced, how often it is reported by those experiencing violence and how it is experienced by individuals vary. There are contradictions in how often students experience and report school violence. Students exposed to the same environment or to similar conditions within different environments reported different experiences and perceptions (Espelage & Holt, 2001). While some students in a school or classroom reported that they were bullied often, others in the same classroom reported they were not bullied at all. It is not only the perceptions that conflict, the numbers of incidents reported also vary. Espelage and Holt (2001) found that some students reported only single or infrequent episodes of violence while others reported multiple and frequent forms of violence. From similar findings, Barboza, Scheamberg, Oehmhe, Korzenieuskie, et al. (2009) concluded that bullying was not simply an individual response to a particular environment. They proposed that school violence was a complex peer-group behaviour that arose out of deficits in the social climate.

The reports of how students feel when they experience school violence also vary. Just as there were conflicting reports of exposure to violence, there were also conflicting reports about feelings of personal safety when exposed to school violence. While some students reported that they felt unsafe in school, other students reported feeling safe in the same school. According to Billingsley (2003) who investigated students between 10 and 18 years who attended five American cities or their surrounding areas, 85% of the students reported feeling safe while 15% reported that they felt unsafe in the same school. These results indicate that when students are exposed to the same violent environment, they will report different perceptions about their personal safety.

Patterns in School Violence

As research accumulates, there is more evidence that the patterns of behaviour change over time. It has been observed that behaviour changes with the ages of the students, the intent of the behaviour demonstrated, and the way by which violence occurs.

Student Age and Frequency

Changes in Student Age are accompanied by changes in demonstrated behaviour. The first trend demonstrates that, as students get older, there are changes in the pattern of violent behaviours demonstrated. Bosacki, Marini, and Dane (2006) stated that bullying is a complex set of behaviours that change in both the frequency and type of behaviour demonstrated. The authors stated that the frequencies of incidences and the reporting of incidences increase with age to a peak then the frequencies decline. Also, the types and frequencies of bullying behaviours that are displayed by males and females change. As a general pattern, males tend to be more physical and frequent than females who tend to be more social in bullying practices. Thus, the trends in reporting incidents of bullying and victimization, and the types of response to aggression students demonstrate, appear to be related to the age of the student.

Peaks in Frequency occur but the age of the occurrence is not conclusive. Though there is general agreement amongst researchers that peaks in frequencies or types of reported behaviour by students do occur, there is no consistent agreement as to when they occur by either age or grade level. In a US study, Barboza et al. (2009) examined the risk factors associated with bullying behaviours among adolescents aged 11 to 14 years. They used the Health Behavior in School Children: WHO Cross-National Survey to investigate the relationships between bullying and the factors of peer and family support systems, self-efficacy, and school environment. The results suggested that the likelihood of being a bully increases by 6% with each year of age from 11 to 14

years. The likelihood of being a bully also increases among children who lack teacher support, have been bullied by others, attend schools with unfavorable environments, lack emotional support from their peers, and have teachers and parents who do not place high expectations on their school performance. The authors concluded that approximately three to five percent of adolescents between 11 and 14 years of age exhibited chronic and frequent bullying behaviour.

The increase in the number of students between 11 and 14 years who demonstrated bullying behaviour coincides with an increase in the number of reported incidents during that same time span. Bradshaw, Sawyer and O'Brennan (2007) conducted an on-line survey of 15,185 students from Grades 4 to 12 and 1547 teaching staff. The participants, all from one school district in California, completed an on-line survey that investigated experiences with bullying, beliefs about aggressive retaliation and perceptions of bullying. Overall, they found that 49% of the students reported being bullied within the last month, 31% reported bullying other students during the same time period, and 71% of the students reported witnessing others being bullied. Although they found that a significant number of students reported being bullied, they noted that the middle-year students, followed by high school students, reported witnessing other students being bullied more frequently than did elementary students. In this study, the middle-years age group appeared to have the greatest numbers of incidents and reports of incidents of bullying.

Similar results were determined in a US study by Davidson and Demaray (2007) and Eslea and Rees (2001), who stated that bullying incidents were reported more frequently by students during the middle and junior high years. The study by Davidson and Demaray examined responses of 355 Grades 6 to 8 students in a small Midwestern US town. They found that children in the lower middle-years—Grades 6 and 7—report the highest rates for bullying and victimization. The study by Eslea and Rees suggested that the ages of 11 to 14 years appear to be the peak years for

incidents. These ages indicated as the peak years for incidents coincide with the ages of students in junior high or upper middle-years in Canada.

Decline in frequency occurs after the peak. While different authors concur that the years of 11 to 14 are years of increased bully behaviour, they also state that these years are followed by a decrease in the number of incidents during the high school years (Akiba & Ham, 2007; Craig & Pepler, 2004; Davidson & Demaray, 2007). Nansel, Overpeck, Pilla, Ruan et al. (2001) concluded that there were more incidents of bullying reported by students in Grades 6 to 8 than in Grades 9 and 10. Their statement, that 12 to 14 year-old students are more likely to be victims of violence at school than are 15 and 16 year-olds, supports the previous studies that indicate a decline in incidents with the age of the students. For most students, there appears to be a pattern where the peaks in frequency occur during early 11 to 14 years and declines during the years following (Brown, Birch & Kancherla, 2009).

Pepler, Craig, Connolly, Yuile, et al. (2006) investigated how the reporting of bullying behaviours changes through adolescence. This study involved 1896 students in Grades 6 to 12 who completed surveys about the various forms of bullying. The authors examined the numbers of students who reported bullying, the types of behaviours demonstrated, and the types of relationships in which the various forms of bullying occurred. They found that Grades 6 to 8 students reported less bullying than the Grades 9 to 12 students. They also found that the peak time for reporting bullying occurred in Grade 9 after entering high school. These results, though contradicting other research findings, do support the change of pattern as students age or increase in grade level.

Student Age and Types

As students get older, there is a change in the type of violence demonstrated. Bosacki et al. (2006) stated that school violence could be demonstrated differently using different behaviours and different forms of behaviour. According to this report, earlier bullying behaviours, which took the form of physical, verbal or social actions, changed over time to include more sexual harassment during adolescent years. Pellegrini (2002) agreed with this statement when he stated that bullying became more sexual in nature as children advanced in age and moved into puberty. Espelage and Holt (2007) examined how race and/or gender impacted the association between experiences with sexual harassment and dating violence across bully-victim subtypes. The authors surveyed 369 Grades 7 and 8 middle school students and 315 Grades 9, 11 and 12 high school students. The authors concluded that behaviours such as uninvited kissing, touching, and flirting were wide-spread amongst young adolescents and that 80% of students experience such sexual harassment during their time at school. Of those 80% who experienced harassment, 75% reported non-physical harassment while 58% reported physical harassment.

Pepler et al. (2006) and Benbenishty and Astor (2005) also found a sexual component in the bullying behaviours of students. While Pepler et al. found that students in the elementary grades (6 to 8) reported less sexual harassment than did students in the high school grades, both studies found a difference between boys and girls in their levels of sexual harassment. They found that boys reported higher levels of victimization from bullying and sexual harassment than girls.

Change in Means

In addition to the change in the types of violence, there is a change in the way by which bullying and victimization behaviours occur over time. Bullies make use of electronic means to harass, ridicule or demean their victims. Kowalski and Limber (2012) studied 931 students in

Grades 6 to 12 in two Pennsylvania schools and found that during the previous month, 21% of the students were involved in at least one incident of cyber-bullying compared to 51% of the students who were involved in at least one incident of traditional bullying. In another study, Li (2007) surveyed 177 middle school students to investigate their experiences with bullying and cyber-bullying. He found that about 25% of the students reported being cyber-bullied while about 15% reported bullying others by electronic means. He also found that 59% of students victimized were female and 52% of the cyber-bullies were male. In a similar study by Raskauskas and Stoltz (2007), 84 students between 13 and 18 years of age were surveyed to investigate bullying and cyber-bullying. They found that about 50% of the students reported being victims of cyber-bullying while about 22% reported participating in cyber -bullying. The electronic devices appear to provide another avenue through which bullying and victimization can occur (PREVnet, 2004c).

It has been shown that the trends in violent behaviour are dynamic and change overtime. Behaviours change with the age of the students, with the intent and in the means of demonstrating violence. These changes in form, intent and means frame the settings in which academic performances occur.

Consequences for the Learning Environment

Studies suggest that the negative experiences to which students are exposed at school are related to the way students interact with the environment. Violence is related to both student physical and emotional health over the short and long term (Danielsen, Samdal, Hetland & Wold, 2008; Swahn & Bossarte, 2006) and academic achievement (Buhs, Ladd & Herald, 2006; Schwartz, Gorman, Nakomoto & Toblin, 2005). In this section, an overview of the relationship of school violence to academic performance is presented. This is followed by an overview of the relationship between perception of personal safety and academic performance.

School Violence and Academic Performance

According to Forsberg, Thornberg and Samuelsson (2014), in incidents of school violence, there are three different roles: the bully, the victim and the witness who observed the actions of the bully and the victim. Although there are three roles in the school violence, only a relatively small percentage of students precipitate or engage in the violent behaviours (Espelage & Holt, 2007). While, approximately three to five percent of adolescents between 11 and 14 years of age exhibited chronic and frequent bullying behaviour (Barboza et al., 2009), between 15% and 18% of students were frequently victims of school violence (PREVnet, 2014b). These small percentages of students were observed by the larger student body when in school (Forsberg, Thornberg & Samuelsson, 2014). The larger student body of witnesses was reported to be between 60% (The National Education Association, 2007) and 88% (Hawkins, Pepler & Craig, 2001) of the students. Such observations of the bullies and victims by the larger group of witnesses could lead to a negative perception of the school environment (Craig & Pepler, 2007; Swearer, Song & Cary, 2001).

Similar characteristics are demonstrated by bullies in all grade levels and at all age levels for both male and female students. Male and female victims across all age and grade levels also demonstrate similar characteristics (Nansel et al., 2001). In addition, whether bully or victim, the participants in the school violence experience academic difficulty. According to Fleming, Haggerty, Catalano, Harachi, et al. (2005) and Smokowski and Kopasz (2005), academic performance is affected when the student's attention is drawn from schoolwork to surviving in a hostile learning environment. Thus a negative school climate is related to a reduced level of academic performance.

Although bullies are often characterized as bigger, stronger, more uncooperative, more impulsive and more aggressive than other students (Harris & Petrie, 2003), bullies are often popular with their classmates (Juvonen, Graham, & Schuser, 2003, Nansel et al., 2001). Research indicates

that bullies, although popular, may have other school related difficulties. Research conducted with kindergarten through middle-school students indicated that bullying interferes with academic functioning: including engagement in learning, attitudes toward school, teachers and achievement (Buhs, 2005; Buhs et al., 2006). Other studies suggest that there is a negative correlation between students who bullied and their level of academic achievement (Mynard & Joseph, 1997; Nansel et al., 2001).

Although the victims of school violence are often characterized as small, isolated, or insecure individuals, victimized students tend to range in size, intelligence, attractiveness, and popularity (Liepe-Levinson & Levinson, 2005). Victims tend to demonstrate poor emotional and social adjustment (Canadian Council on Learning, 2008; Nansel et. al., 2001). They found it difficult to make friends; they felt isolated, and had poorer relationships with classmates (Nansel et al., 2001).

The bully-victims have the combined negative characteristics of the other two groups (Nansel et. al., 2001). According to Nansel et al., this unique group feels isolated, has difficulty making friends, has poor relationships with classmates, has behavioural problems and reduced academic achievement.

Types and frequencies of violence are related to academic performance. Baker-Henninghama, Meeks-Gardnerb, Chang and Walker (2009) reported that students who experienced different types of violence had lower academic performance than did students who experienced many episodes of only one type of violence. In addition, students who experienced four different forms of violence had an increased risk of poor mental health as compared to students who experienced fewer types of violence.

Math and ELA are related to school violence. While some studies reported on academics in general, other studies reported on performance in specific subjects. Although various studies have examined the levels of reading and math as indicators of academic achievement, there have been contradictory findings. Some studies found both subjects to be related to school violence. Konishi, Hymel, Zumbo, and Li (2010) examined how the social climate of schools could affect academic outcomes. The authors used 27,217 Canadian students aged 15 years of age and 1,087 school principals. In this study, the students completed a standardized large scale test on reading and math achievement and a survey about their feelings of connectedness. The principals provided the data on the rates of bullying at their schools. The authors examined the data to determine the relationship between school bullying, student-teacher connectedness, and academic performance. They found that math and reading achievement were negatively related to school bullying. They also found that a positive relationship between the teacher and the student could buffer the effect of the negative environment on academic performance. Lee and Shute (2012) reviewed personal engagement and learning strategies and the influences of school climate and family on achievement in the areas of reading and mathematics. They found that both reading and math scores were affected when students were harassed.

A three year study by Luiselli et al. (2005) took a different approach. Instead of investigating the negative impact of behaviour on reading, these researchers investigated how positive interventions impacted the reading and math achievement. In this study, the authors sampled 550 Grades K to 5 students in an urban community. They investigated the number of office referrals and suspensions and had students complete the Metropolitan Achievement Test–Seventh Edition that measured critical skills related to reading comprehension and math. The results during the first year set the stage to show changes that occurred with interventions. High

rates of office referrals and suspensions were associated with lower academic performances. With the introduction of the Positive Behavioural System, the results showed that positive interventions brought about improvements in reading and math and reductions of office referrals and suspensions.

Other studies have found no consistency in the results relating math or reading to school violence. According to Burkam, Ready, Lee, and LoGerfo (2004), math, not reading, appeared to be a good indicator of the relationship of school violence to student performance. The authors stated that when students were impacted by incidents of violence, the impact was reflected in math achievement. Konishi, et al. (2010) investigated 15 year old students from all of the Canadian provinces. They reported that students in schools with higher levels of bullying were likely to have lower math and reading achievement than students in schools with lesser levels of bullying. Ripski and Gregory (2009) used a cross-sectional design to investigate the relationship between student perceptions of the school climate and student engagement, reading and math achievement. The sample was made up of 15,000 students who were in Grade 10 in 752 public, Catholic or private schools. The students completed self-report questionnaires and achievement tests in reading and math. The researchers found that perceptions of unfairness, violence and victimization were related to student reading achievement. They noted that as the perception of violence increased and feeling safe dropped, so did reading scores. These changes, however, did not appear to occur for math achievement.

Results in other cultures report similar findings. Studies in other cultures and settings found that students who perpetrated violence as well as those victimized by peers were likely to demonstrate poor academic performance (Buhs et al., 2006; Juvonen et al., 2000; Pereira, Mendonça, Neto, Valente, et al., 2004). Townsend, Flisher, Chikobvu, Lombard et al. (2008) in

Cape Town, South Africa, followed a cohort of 1,470 high school students for the duration of their high school years. The researchers concluded that continued involvement in bullying behaviour stimulated continued exposure to the negative effects of bullying, such as fear, absenteeism, poor academic performance, and psychological distress. Baker-Henninghama et al. (2009) studied 1300 children in Grade 5 in urban primary schools in Jamaica. They investigated the relationships between academic achievement (math, reading and spelling) and 3 types of violence (aggression between peers, punishment at school and community violence). Each type of violence was individually and negatively related to math, reading, and spelling. They also found that those students who had experienced high levels of violence had the poorest academic performance and those who had experienced little or no violence had the highest academic performances.

Student perceptions are also related to school violence. Swaim, Henry, and Kelly (2006) found that academic ability was related to how students reported their engagement in school violence. Those students who described themselves as good students were less than half as likely to engage in verbal harassment, to make threats, or to fight, compared to those who reported themselves as poor students. Similar findings were found in an urban study by Price, Telljohann, Dake, Marsico, & Zyla, (2002). These authors examined a sample of 1,912 Grades 4 and 5 students in a Midwestern urban school district in the United States. They found that academic success was related to perceived viability of passive solutions such as talking to the bully, walking away or telling an adult. Students with A’s and B’s were 2.5 times more likely than those who received C’s and D’s and 3.2 times more likely than those who received D’s and F’s to employ strategies such as walking away or talking to the bullies. Those with C’s and D’s were 2 times more likely and those with D’s and F’s were 2.5 times more likely than those with A’s and B’s to have concerns for their safety both in and around school. Students with D’s and F’s were 2 times more likely than students

with A's and B's to strike back when provoked. In a similar study by Bauman (2007), 3,307 Arizona students in Grades 9 through 12 completed the Youth Risk Behaviour Survey that was a component of the Center for Disease Control's program to monitor health risk behaviours among youth. There was a statistically significant difference in mean frequency of victimization by academic grades. Students who reported mostly F's as their academic performance also reported higher rates of victimization.

Personal Safety and Academic Performance

Research indicates that student perceptions of the environment, as either positive or negative, are related to academic performance (Chen, 2007; Glew, Rivara, & Feudtner, 2000; Luiselli et al., 2005). In this section, the relationship between perceptions of personal safety and academic performance is reviewed.

Bullying and personal safety are related. Bullying, according to the research, has been related to increased levels of threat to personal safety (Beran & Tutty, 2002; Boulton, Duke et al., 2012). While many children enjoy going to school, others find it a frightening experience (Cowie & Oztug, 2008). Cowie and Oztug (2008) found that 20% of the students reported that being bullied by peers was the reason that they felt unsafe at school.

While students in middle school were more likely to report feeling unsafe in school, those who reported high levels of victimization also reported lower perceptions of safety (Forlin & Chambers, 2003). Varjas, Henrich, and Meyers (2007) reported that males and older students reported feeling safer than females and younger students. Carney, Shannon and Murphy (2005) examined the responses of 396 grade four students in South Florida elementary schools to determine the conditions of safety and violence within the schools. Although conditions were generally considered to be safe in these schools, approximately one-half of the elementary school

students in the study expressed some concerns about their safety. Those students who felt less safe tended to be male and to be from lower socio-economic backgrounds. The authors concluded that when students did not have positive relationships with other students, and when they experienced academic difficulty in school, they generally felt less safe at school.

According to Cacioppo, Hawkley, Ernst, Burleson, et al. (2006) and Goldweber, Waasdorp and Bradshaw (2013) when students were made to feel lonely by peer aggression, they also reported that they felt unsafe. In addition to feeling unsafe, they displayed increased sensitivity to threats and attack. Because of this increased sensitivity, it was not enough that the environment appeared to be safe for students; it was more important that students perceived the environment as safe (Carney et al., 2005; Hernandez & Seem, 2004). Hernandez and Seem explained the indirect connection between school climates and personal safety. They stated that as the perceptions of fear increased, students perceived a negative school climate which, in turn, was related to the school context of demonstrated school behaviour, confidence in administration and the informal social controls against violence. In response to this fear, students might bring weapons to school, retaliate more often or act out behaviourally. However, the authors stated that there was not a direct linear relationship between fear, controls against violence and school context; the relationships were interactive. The school context of personalities, as well as the formal and informal structures, was related to the school climate. As a result, the perception of the school context could shape the school climate that, in turn, could shape the perception of safety within the school.

Attendance and victimization was found to be related. Many victims were reluctant or afraid to come to school (Juvonen et al., 2000; Smokowski & Kopasz, 2005). Saxon (2005) explained that students who were the victims of repeated bullying behaviour experienced extreme fear and stress. Boulton, Duke et al. (2012) found that 5% to 10% of 9 to 11year old pupils reported

very low levels of perceived safety at school. Another study found that 7 % of US eighth grade students reported absence at least one day a month due to bullying (Smokowski & Kopasz, 2005). Other reports have stated that students, who were victimized, often stayed home, dropped out, or suffered from depression and anxiety (Foltz-Gray, 1996; Saxon, 2005). Because of absences, students also experienced a drop in grades (Smokowski & Kopasz, 2005).

Fear and Academics are related. There is evidence accumulating that indicates that when students are fearful of the school environment, they suffer socially, psychologically and academically (Chirila, 2012; Felix & McMahon, 2006; Lacoe, 2012).

After investigating the social and psychological implications of bullying in schools, Chirila (2012) stated that any factor that appeared in the school environment had a significant impact on shaping an individual's development, including academic development. The author concluded that the peer group in school increased in importance with each grade level to an individual student and it played a significant role in the academic development of the individual.

Glew, Fan, Katon, Rivara, and Kernic (2005) studied 3,530 students in Grades 3 to 5 to investigate the types of bullying, academic achievement, feeling safe in school, feelings of belonging at school and feeling sad. Students were surveyed on incidents of bullying and feelings of safety, belonging and sadness. Academic achievement was based on a composite test score from the Washington Assessment of Student Learning, and the Iowa Test of Basic Skills. The researcher found that all of the groups (bullies, victims and bully/victims) were more likely to feel like they did not belong in school and to feel unsafe or sad, compared to their non-bullied peers. These findings also suggest that students who are involved in school violence are more likely to have lower academic achievement scores compared to their non-bullied peers.

Schwartz, Gorman, Nakomoto and Toblin (2005) conducted a study to investigate the impact of peer group victimization on academic functioning during the later years of elementary school. Their sample was made up of elementary school students living in an economically and culturally diverse urban neighbourhood. The results found that frequent victimization by peers was related to poor academic functioning. Olweus (2003) found that victims might perform on average or better than average in elementary school; however, by middle school, they usually tended to be less successful than peers who were not bullied. Another study by Juvonen et al. (2000) found that middle school students, ages 12 to 15 years, who were bullied, had lower grade point averages than non-bullied students. These results suggest that victimization by peers could create a negative environment which is associated with academic adjustment in school.

In a study by Luiselli et al. (2005), approximately 600 students at a US urban elementary school were selected to investigate student learning environment. The authors investigated problems which create an unsafe learning environment, undermine instruction, or pose a threat to the school population. The authors found that violence, vandalism, bullying, and other similar behaviours were negatively associated with academic performance.

Personal safety and academics are related. If a student felt safe, it was easier for that student to learn (Bosworth, Ford & Hernandaz, 2011). Lacoe (2012) stated that a safe learning environment was necessary for productive learning. She found that when students did not feel safe in school, whether in the classroom or in other areas of the school, there was a constant negative correlation with scores on tests.

Chen (2007) drew a similar conclusion to Lacoe (2012) when he examined the connection between a safe environment and academics. Chen examined feelings of safety, attendance and

disruption of instruction when investigating elementary schools in New York City. He found that when students felt safe and had fewer absences, they had improved academic performance.

Goldbaum, Craig, Pepler, and Connolly (2003) investigated the impact of school violence on social and emotional health in an urban Canadian city. In this study, 1241 students in Grade 5, Grade 6 and Grade 7 were surveyed. This study investigated the effects of long term victimization compared to relatively short term victimization. They found that repeated victimization over the long term impeded a child's healthy social and emotional development. In another study by Swahn and Bossarte (2006), the authors investigated the associations between victimization, missed school because of feeling unsafe, and asthma episodes. High-school students from urban, suburban and rural areas of the US completed the 2003 Youth Risk Behaviour Survey. Their results showed that there was a significant relationship between experiencing victimization and asthma episodes and between missing school because of feeling unsafe and asthma. Similar conclusions were drawn by Schwartz, Farver, Chang and Lee-Shin (2002) and Buhs and Ladd (2001). These authors concluded that students experiencing emotional distress due to repeat victimization and concerns for their personal safety become disengaged from and stop participating in class. From these studies, it could be observed that peer victimization from early childhood through adolescence produced negative consequences for mental and physical health and academic performance.

Feeling unsafe and sensitive to threats affected learning as the coping skills required to respond to these conditions use up information–processing resources (Finucane, Whiteman & Power; 2010; Inzlicht & Kang, 2010). These authors stated that as the information processing resources were used up, the student's ability to learn was impaired.

Setting the Decision Framework

For this study, the literature review guided this study by setting the framework for decision making in five different areas. First, the studies cited demonstrated that school violence was not a myth but a real experience in the daily lives of students. All student ages, hence grade levels, experienced violence; however, how they felt about the violence and how they experienced that violence changed with students' ages. These conditions led to a question about how the different grade levels were related to the exposure to school violence and to the feelings of safety within the environment. To answer this question the Grades 4 to 6 students and the Grades 7 to 12 students were selected for investigation.

Second, the review presented information that demonstrated that school violence and personal safety were separate factors acting within the school environment. Though the factors were related, they were not in direct opposition. Strategies to reduce school violence did not necessarily increase feelings of safety. Similarly, feeling safe within the environment did not necessarily reduce the frequencies, intents, or forms of violence. This situation led to the question about how both factors operated within the school environment and related to academic performance. To answer this question the perceptions of school violence and the perceptions of personal safety were selected as variables in this study.

Third, the research showed how the external environment was related to the reality of the student. It showed that how the external environment interacts with the internal feelings influenced the type of perceptions and the reality of the student. These interactions between the environment and the cognitive and emotional dimensions of students led to questions about how students' perceptions of school violence and perceptions of personal safety were related to their perceived academic performances.

Fourth, reading and math had been found to be related to the exposure to school violence and to the feelings of personal safety. This finding led to question how school violence and personal safety are related to academic performance in this school division. To answer these questions perceptions of math and ELA marks were selected as variables.

While other research cited in this chapter used surveys and focused on large schools found in urban centers and on the actual marks of students, this research also used surveys but focused on small schools in a rural area and on perceptions of marks.

Chapter Summary

In this chapter, the perspective that school violence is a pervasive negative influence operating on the students who function within the school environment was outlined. The public view of school violence, though distorted, contributed to the need for an expanded definition of school violence. The conclusions of several of the studies reviewed indicate that school violence and personal safety are separate factors that operate within the school environment. The nature of the school violence and the trends in reporting and experiencing school violence and victimization are presented. Academic performance has been shown to be related to health, school violence and perceptions of personal safety.

The literature review provides a foundation for understanding the role of school violence and personal safety in the academic lives of students. The issues presented in Chapter Two are further elaborated in Chapter Four (Findings) and discussed in relation to the present study in Chapter Five (Discussion).

CHAPTER 3: METHODS

Introduction

In this chapter, the practical aspects of the research study are outlined and the research methods used to collect and analyze the data are described. Included in this section, there is an overview of the sources of data, a description of the school contexts, discussion of confidentiality and ethics, the researcher's position, the participant selection and data analysis.

A quantitative research methodology was selected to investigate the relationship of student perceptions of school violence and perceptions of personal safety to perceived marks.

Sources of Data

The data for this study came from the results of a survey conducted by the Health and Safety Committee of the school division. The CPHA Safe School Surveys were distributed to the Grades 4 to 12 students who attended the schools of this division. A questionnaire prepared by the Health and Safety Committee was attached to the CPHA surveys to be completed by the same students. The completed surveys were analyzed by the committee and made available to the researcher once the work of the committee was completed.

Description of School Contexts

The study was conducted using data from all but one of the schools in a small school division located in rural Manitoba. Although there were seven community schools eligible to take part in the surveys, only six took part; the seventh school chose not to not participate. The participating schools had a total student population of approximately 750 students (K to 12) and a total possible survey population of about 450 (Grades 4 to 12). Each of the schools that participated is located in a different community within the school division. The student populations of the

schools are made up of a variety of ethnic groups including Aboriginal, Metis, French, English, German, and Mexican.

The school division is made up of seven small schools, four of which are K to 12 schools, one which is K to 8 and two Hutterian schools offering K to 10 and K to 12. Each school, with the exceptions of the Hutterian schools, has a small student population comprised of a varied composition of age, grade levels and cultural backgrounds. Most schools have a student population between 100 to 250 students while one school had less than 50 students.

The schools have equal compositions of males and females in Grades 4 to 12. Approximately 1/3 of the students surveyed were registered in Grades 4 to 6 with the other 2/3 in Grades 7 to 12. Grade 4 was selected as the lowest grade for participation in this study for two reasons. This grade was included within the elementary-years age groupings and served as the lowest grade level that the CPHA survey targets. It was also an age group about which the rural school division wanted to acquire data regarding school violence.

In this division, feedback on performance is provided to students in different forms according to the grade level of the student. From my work as an administrator and as a member of various committees, I am aware that most assessments of elementary, middle and high school student performances are based on teacher made assessments, including final assessments. Although Grades 4 to 6 students might receive marks out of 100% on individual math and ELA assignments or tests, most feedback to students about their performance is descriptive (eg.“5 errors”, “very good”, etc.) with suggestions for improvement (e.g. “Proper nouns need capital letters”). Although they are considered to be middle-years students, in most schools of the division Grades 7 and 8 classes generally followed the high school structure for reporting student performances. As most assessments for Grades 7 and 8 classes are teacher-made, these students

receive feedback as descriptive comments with suggestions for improvement or as calculated marks for tests and assignments. The Grades 9 to 12 students are considered to be high school students. Like the Grades 7 and 8 students, Grades 9 to 12 students receive feedback as descriptive comments with suggestions for improvement or calculated marks for tests and assignments.

Unlike the Grades 4 to 8 classes that run year long, in this division the high school courses for math and ELA are normally semester courses that span only one semester (5 months). The high school math and ELA courses, during first semester, are courses that have teacher assessments during the semester and a final examination at the end of January. Any math and ELA courses that ran during the second semester are courses where had only teacher assessments had occurred at the time of the survey administration.

During a regular day, the mixing of the Grades 4 to 6 students with the older Grades 7 to 12 students is limited. The grade levels are separated to occupy different areas of the school. The only mixing of the Grades 4 to 12 students occurs during whole school activities and presentations and during the bus loading, unloading and commuting.

Confidentiality and Ethics

The original requests for permissions and data gathering were conducted by the School Division Health and Safety Committee. The completed surveys were placed in storage after the Committee completed their analysis. The researcher had made a request to the school board to use the data collected once the Committee's analysis of the data were completed. The completed and anonymized surveys remained in storage until permission was granted by ENREB to complete the analysis portion of this research.

The issues of informed consent, voluntary participation and protection of the participant from harm were all considered in this research. Informed consent and voluntary participation were

issues that had been previously addressed in the original survey process by the Health and Safety Committee. The Health and Safety Committee had acquired consent and voluntary participation when conducting the original surveys. Any students who did not have or give consent or were absent did not complete the original surveys of the Health and Safety Committee.

Protecting the participant from undue harm was addressed by the Health and Safety Committee prior to the researcher receiving the surveys. This protective measure maintained the confidentiality of the responses and the anonymity of the participants by anonymizing the student surveys before data analysis. To accomplish these measures, the researcher received the original copies of the completed surveys only after all notations, marks, references, etc. that could identify the student or the school had been removed by the Health and Safety Committee. Before any data were entered for analysis, the surveys were stored in the locked office at one of the schools.

While data were entered for analysis, the original copies of the surveys were removed from the school to a locked office closet in the researcher's home. No other person had access to the surveys at any time. After the data input was completed, the surveys were stored until the research study was completed. After this, the surveys were shredded and burned in a local incinerator under the supervision of the researcher.

Researcher's Position

Every researcher has his/her own biases with which to contend. While it is important that these biases be recognized and disclosed prior to the research being started, it is the researcher's responsibility to attempt to remain neutral and unbiased during the collection and analysis of the data and to become aware of and acknowledge biases as they become evident.

As an administrator of a school, I believe that schools are places of learning and that the learning environment is crucial to the fulfillment of that role. Although schools emphasize

academic learning, learning is more than academic knowledge; it includes learning the interpersonal and intrapersonal skills necessary to function effectively in a social environment. With these learned skills, I believe that students have the power to choose, to change and to be responsible. The initial context of personalities and school structures must be identified before a strategic plan for development can be executed. Some of the context of the school environment was already known. I was aware of some attitudes towards school violence held by students, parents and staff. In meetings with staff, students and parents, frustration over issues of violence were frequently voiced. They were frustrated that school violence: frequently involved the same students; disrupted the learning environment of the classrooms; was the reason some students did not attend school; made students fearful of some classes, the playground or the bus; was often discussed but not ameliorated; and was not limited to particular age or grade levels but permeated the entire school. Students, staff and parents wanted solutions and looked to administration to find and implement those solutions.

I was an administrator of one school within the school division when the research was initially undertaken. While an administrator, I was aware that students in the schools had, in previous years, completed the surveys that had been distributed by the Health and Safety Committee. I was also aware from the presentation given by the Committee that they would be collecting data using the same methods as previous years. As the data that the school division was going to collect were the data I wanted to investigate, I submitted a request to the school board to use the data for this study. After the school division agreed to participate in exchange for a written summary of the study results, I removed myself from participation in the data collection process. I delegated to the head teacher the responsibility to administer, collect, anonymize and forward the completed surveys to the Health and Safety Committee.

Participant Selection

The subjects of the study were 414 Grades 4 to 12 students who attended the schools of this rural Manitoba school division and acceptably completed the surveys and questionnaires of the Health and Safety Committee. All participants were from 8 to 19 years of age and lived in one of six rural communities (one Hutterian community did not take part) that formed the catchment area for the school division. According to Statistics Canada (2011), by population, English and French accounted for the larger percentages of the student population in this region with Metis and Aboriginal populations having similar but smaller percentages and the German and Mexican cultural groups having the lowest percentages.

The completed CPHA surveys provided two samples totaling 414 students from six schools in a rural school division. One sample consisted of 153 students in Grades 4 to 6 (ages 8 to 11) while the other consisted of 261 students in Grades 7 to 12 (ages 12 to 19).

Instrumentation

Three instruments were used during this study—two versions of the CPHA Safe School Survey[2] and a local questionnaire (see Appendix A). Adapted versions of the CPHA School Safety Survey (Hymel, Ishiyama, & White, 2003) along with a questionnaire prepared by the Health and Safety Committee were acquired from the Health and Safety Committee of the school division.

Safe School Survey

Of the two versions of the CPHA Safe School Survey, one was designed for Grades 4 to 7 while the other was designed for Grades 8 to 12 students. The CPHA Safe School Survey was used to collect data on perceptions of school violence and perception of personal safety. It measures feelings of safety, bullying, sexual harassment and racial discrimination. This instrument was developed from the West Vancouver School District's Safe School Survey (Hymel, White, &

Ishiyama, 2003) and the WHO Health Behaviour in School-aged Children Survey (WHO, 2004). It was a research tool used throughout the West Vancouver School District as well as in research for the Canadian Public Health Association (CPHA). The CPHA recognized the Safe School Student Survey in 2003/2004, as a tool for Canadian research into bullying. The CPHA has since used it as part of several national surveys on identifying and addressing bullying behaviour. The two versions of the Safe School Student Survey have been made available by the CPHA to all Canadian schools at no cost.

The CPHA Safe School Survey is widely used. The surveys "were developed with the guidance of leading experts in the field and [were] based upon the best instruments available in the world today "(CPHA, 2004a, p. 6). The questions of this survey have been asked of thousands of students around the world as well as across Canada (CPHA, 2004a). This speaks to the extensive use of this measurement tool. To address the reliability issues the authors "decided to exclude students under the grade four level due to the considerable problems around reliability and validity documented in previous investigations" (CPHA, 2004a, p. 21). The survey inquired into the types of bullying (physical, verbal, relational, and electronic), measured responses from the perpetrators, victims and witnesses, and asked about characteristics, attitudes, and perceptions of bullying. Although the surveys have been used in other research (Lemstra, Roger, Redgate, Garner, & Mororos, 2010; Stys, 2004), there is no evidence that the validity and reliability of the surveys have been formally tested.

The main differences between the two versions of the survey are the length, content and vocabulary. The survey for Grades 4 to 7 was shorter, without a sexual harassment section and with simpler vocabulary than that for Grades 8 to 12 students. However, the survey was identical regarding definitions of terms, response scales for questions and procedures for administration and

survey completion. Given that within most high schools of the school division, the Grades 7 and 8 classes were included within the high school settings, and given that the school division had its own purposes for issuing the surveys, the surveys were modified for distribution. The Grades 4 to 7 surveys were distributed to only the Grades 4 to 6 students while the Grades 8 to 12 surveys were distributed to the Grades 7 to 12 students.

While the entire survey had been administered for the purposes of the school division, only those responses to selected questions concerning exposure to school violence (physical, verbal, social or electronic) and perceived threats to personal safety were extracted for the purposes of this research (see Appendices B, C, D, and E).

On page 4 of the Grades 4 to 6 surveys and on page 5 of the Grades 7 to 12 surveys, a definition of bullying is provided to the respondents. The definition states that "A bully wants to hurt the other person (it's not an accident). The bully does or says the same things over and over again. Bullying is Unfair. Sometimes a group of students will bully another student."

The survey describes the various forms that bullying could take: physical (defined as hitting, shoving, kicking, spitting, beating on others, or damaging another's property), verbal (defined as name calling, mocking, hurtful teasing, humiliating, or threatening someone), social (defined as exclusion, gossiping, and spreading rumours), and electronic bullying (defined as using computer or e-mail messages to bully). It asks respondents to indicate how often (using response options ranging from "Not in the previous 4 weeks" to "Many times a week") they have been part of a bullying incident: either as a victim, bully, witness, or accomplice. They are also asked to indicate on a response scale ranging from YES (very safe or not afraid) to NO (very unsafe or afraid), a single summative evaluation of their perceptions of personal safety and their fear for personal safety.

School Division Survey

An additional questionnaire was prepared by the Health and Safety Committee of the school division. On this questionnaire, students were asked to respond to questions about student behavior in class, feelings of safety, course selections, marks and performance compared to other students in the class. For the present study, only perceptions of marks and feelings of safety were selected for the present study. Students were asked to indicate their academic performance using the grade response options that ranged from “Below 50” to “80 to 100” that best represented how well each student thought he/she was performing in math and in ELA classes. Students were also to indicate a single summative evaluation of their overall feelings of personal safety in school according to the scale from Very Safe, Safe, So-So, Unsafe, and Very Unsafe. (Appendix D and E)

Data Analysis

This study highlights the relationship of school violence and personal safety to student perceptions of academic performance in math and ELA in this small rural Manitoba school division.

The comparison of the perceptions of school violence, of perceptions of personal safety and of student perceptions of marks in math and ELA gives rise to the research questions that guides the research. Along with each research question, the researcher presents an hypothesis that is based upon the review of literature. It is hypothesized that, for both Grades 4 to 6 and Grades 7 to 12, as reported school violence increases, the marks will decrease. The study, also, investigates the relationship between Grades 4 to 6 and Grades 7 to 12 perceptions of personal safety and math and ELA marks. It is hypothesized that, for both Grades 4 to 6 and Grades 7 to 12, as feelings of safety increase, the marks will increase. The specific research questions were previously presented in the “Research Questions” section on page 14.

Dependent Variables

There are four variables in this study. The variables are the perception of school violence, personal safety, and marks in ELA and in math. The first two variables (school violence and personal safety) are measured using selected student responses to the CPHA Safe School Survey and to selected student responses to the Health and Safety Committee questionnaire (see Appendix B, C, D, and E). The last two variables (marks in ELA and math) are measured using selected questions from the survey prepared by the Health and Safety Committee survey (see Appendix A).

The variable that measured perceptions of school violence is ordinal. This measure was determined from the responses to questions regarding participation in and observation of others experiencing violence. The response options were: Never in Four Weeks, Once or Twice in Four Weeks, Every Week, Many Times a Week and Don't Know. A total of 55 questions for the Grades 7 to 12 and 32 questions for the Grades 4 to 6 were included in this variable with assigned values ranging from 0 to 4. The value of the response options was totaled and then subtracted from the total possible score for the different surveys to produce a net difference which was used to represent a given student's perceptions of violence. Thus, the greater net difference score for the student assumes that the student had witnessed more school violence, had been a victim of more school violence or had contributed more to the level of school violence. For example, a Grade 7 student had an aggregate total of 101. This total was subtracted from 220. The net difference of 119 became the score to represent his perception of school violence.

The variable that measured perceptions of personal safety is ordinal. This measure was determined from the responses to questions regarding feelings of personal safety within the school, on the way to and from school and on the buses. The response options were: YES (Definitely), yes (Often), so-so, no (Rarely), and NO (Never). A total of 11 questions for the Grades 7 to 12 and 4

questions for the Grades 4 to 6 were included in this variable with assigned values ranging from 1 to 5. The response options were then totaled for the survey to produce an aggregate score which was used to represent a given student's perceptions of personal safety. Thus, it was assumed that the student with the higher total score perceived little risk to his/her personal safety.

The third and fourth variables measured perceived marks in ELA and math. These questions were part of a questionnaire prepared by the Health and Safety Committee to investigate the classroom learning environment. These variables are ordinal and measured the student self-reports of marks in math and ELA. For this self-report, students were asked to indicate the response options into which their math and ELA marks fall. The response options were Below 50 (F), 50 to 59% (D), 60 to 69% (C), 70 to 79% (B), 80 to 100% (A).

Statistical Procedures

The analyses were undertaken in a series of steps.

a) First, all surveys were separated into two sample groups of data (Grades 4 to 6 and Grades 7 to 12) for separate analysis. The four hypotheses were examined for both the Grades 4 to 6 and Grades 7 to 12 data.

b) Second, within each sample, the nature of the data as well as the relationships between school violence and marks and between personal safety and marks were investigated using SSPS version 17.

c) Third, to reduce the chance of error when scoring individual surveys and to determine the score for perceived school violence, the columns for the responses on the surveys were given a number from "4 to 0". The 0 was assigned to the "Don't Know" response. In this way "Don't Know" responses did not contribute to the total for any of the selected questions. When the responses were totaled, the overall effect of the "Don't

Know" responses reduced the total scores in each focus area of bullying, witnessing or victimization. As data were entered, the surveys were checked for greater than 10% of the responses being "Don't Know" responses. Any survey which had more than 10% of the responses as "Don't Know" or which produced a score of less than 32 for Grades 4 to 6 or less than 55 for Grades 7 to 12 were eliminated. As a result there were two surveys eliminated from the Grades 4 to 6 and three surveys from the Grades 7 to 12 results.[5]

d) Fourth, to reduce the chance of error when scoring individual surveys and to determine the score for perceived personal safety the columns for the responses on the surveys were given a number from 1 to 5 with the greater feeling of safety having the larger number.

e) Fifth, the one-tailed test was selected based upon the predictions of the hypotheses. According to Field (2005), when the direction of a relationship between variables is predicted then a one-tailed test can be applied to test the hypothesis. In this study, each hypothesis predicted a specific relationship, either positive with marks and personal safety or negative between the marks and school violence. The 95% confidence level was used (Field, 2005, p. 31) which means that there was only a 5% likelihood that the result could occur by chance. The level of significance for all statistical tests was selected to be $p < .05$ to reduce the chance of making a Type I error when testing the hypothesis. According to Field (2005), a Type I error occurs when we believe that there is a genuine effect in the population when there is not.

f) Sixth, because the data was ordinal, Kendall's tau-b was selected for analyzing the data. Kendall's tau-b is a non-parametric statistical procedure used for ordinal data that when

ranked will produce a large number of tied ranks (Field, 2005). This statistical procedure measures the association between two variables (perception of school violence and marks or perception of personal safety and marks) with a statistical test of significance based on the tau coefficient.

g) Seventh, the Kruskal-Wallis test was also run on the data. This test is a non-parametric test that investigates if differences occur between the way relationships are reported by different groups (Field, 2005). A significant Kruskal-Wallis result only indicates that differences occur; it does not indicate which groups report different relationships. In this study, the response options for marks form separate independent groups. The test ranks the scores from lowest to highest then places the scores back into groups. The Kruskal-Wallis test identifies if significant differences exist between how either school violence or personal safety are related to mark selections for two or more independent groups for either math or ELA. This test does not identify which of the independent groups show significant differences.

h) Eighth, Mann-Whitney tests were run as *post hoc* tests after the Kruskal-Wallis test proved to be significant. While the Mann-Whitney test is a test that looks for differences between conditions when independent groups have been used in each condition (Field, 2005), the *post hoc* tests are comparisons designed to compare means of combinations of independent groups to determine if differences exist (Field, 2005). The Mann-Whitney test identifies which of the independent mark groups show significant differences in the relationships between either perceptions of school violence or personal safety and marks. The *post hoc* comparisons which were to explore the data were run between the highest-mark and the three lower-mark response options.

i) The post hoc comparisons were run using a *Bonferroni correction*[6]. The comparisons used a reduced test-wise power level of $p < .0166$ to compensate for the three comparisons. The *Bonferroni correction* controls error by correcting the level of significance for each *post hoc* test such that the overall Type I error rate across the test comparisons remains at .05 (Field, 2005). According to Field, as the Type I error rate and statistical power are linked, there is always a trade-off. Therefore, it is important that multiple comparisons control for Type I errors without a substantial loss of statistical power or Type II (rejecting an effect that actually exists) error. According to Field, the *Bonferroni correction* controls the Type I error rate well and it has statistical power when there are few comparisons.

Chapter Summary

In this chapter, the sources of data and the student environment were presented. This was followed by an outline of how the samples were selected and participant confidentiality protected. The researcher's position and the instrumentation used were described. Last, the variables under investigation were described and the statistical procedures that made up the data analysis were outlined. In Chapter 4, the findings for the investigation of each hypothesis of this study are presented.

CHAPTER 4: THE FINDINGS

Introduction

As previously indicated, this study had four primary hypotheses to investigate with regard to this small rural Manitoba school division. The first two hypotheses focused on uncovering the relationships between the perceptions of school violence and the perceptions of marks in both math and ELA. The second two hypotheses focused on investigating the relationship between perceptions of personal safety and the perceptions of marks in both math and ELA. Although these four hypotheses were the focus of the entire study, the differences between the Grades 4 to 6 and Grades 7 to 12 versions of the CPHA Safe School Surveys regarding the forms of bullying as well as the number of questions necessitated that separate analysis be conducted.

This investigation to test the four hypotheses began by separating the analysis of data according to the version of the CPHA survey completed. The first part examined the Grades 7 to 12 student data while the second part investigated the data for the Grades 4 to 6 students.

Analysis of Data for Grades 7 to 12

The investigation began by examining the nature of the data for the student perceptions of school violence, personal safety and marks. Following this examination, the four hypotheses were investigated.

Nature of the Data

A three-step process was undertaken to examine the data about the perceptions of school violence. In step one, questions, some with multiple parts, were selected that addressed the type and frequencies of the school violence. In step two, a value was assigned to the student responses to the questions selected. In the last step, a final score was calculated for the responses related to the perceptions of school violence.

School Violence

There were seven questions with 55 parts regarding the types and frequencies of the school violence selected (see Appendix B). These areas included the frequencies of being bullied, of bullying others, or of witnessing others being bullied either physically, socially, verbally, sexually, electronically, or racially, over the previous four weeks.

The second step assigned a numeric value to the selected responses. Participants were asked to respond to questions about the frequency of school violence by using an ordinal scale. In order to simplify scoring, the responses on the ordinal scale were assigned a numerical value according to the column in which the response options were located on the survey pages. These selections and values ranged from “4” (“Never in 4 weeks”) to “1” (“Many times a week”) to indicate how often the students were bullied, bullied others or observed others being bullied by others. A score of “0” was applied to the last response option of (“Don’t Know”). This same scale was used for participants to report their experiences with racial discrimination and sexual harassment as either a victim or as a perpetrator. One question with 11 parts used the same scale with the exception of the“0” as there was not a “Don’t Know” option. The total possible aggregate Grades 7 to 12 score was 220 from all the questions.

In the last step, totals of the individual scores for all questions were used to produce one net score. Because “Don’t Know” was a rare response throughout the surveys, any score of less than 55[7] was flagged for investigation. Only three surveys had more than 5 “Don’t Know” responses and total scores of less than 55. It was determined that these three respondents had not completed the selections for perceptions of marks in math and ELA. As a result, these surveys were eliminated. For the remaining students who answered with “Don’t Know” as a response, the “0” value was already included in the aggregate score totaled for the individual students. To facilitate the

interpretation of the results when investigating the hypotheses, all aggregate scores were subtracted from 220. In this way, the net score indicated that the student with the greater difference perceived being harassed or bullied, bullying or witnessing others being bullied more frequently that did the students with lower scores.

The data about the perceptions of school violence were summarized and used to produce Table 1 *Grades 7 to 12 Student Perceptions of School Violence*. It can be seen below that 11.5% (n = 30) of the students in Grades 7 to 12 reported that in the previous four weeks, they never experienced school violence while 80.1% (n = 209) experienced it only once or twice. It can be seen from Table 1 that 7.3% (n = 19) of the respondents had net difference scores of 56 or more. These students reported that they were exposed to school violence every week with some reporting many occurrences each week.

Table 1

Summary of Grades 7 to 12 Perceptions of School Violence

Grades 7 to 12 Perceptions of School Violence			
Ranges for Net Differences for Responses	Response Options	Numbers of Students	Percent of Students
0	Never in 4 Weeks	30	11.5%
1 to 55	Once or Twice	209	80.1%
56 to 110	Every Week	14	5.4%
111 to 165	Many Times a Week	5	1.9%
	Not included	3	1.1%

**N = 261

Personal Safety

Next, the nature of the perceptions of personal safety was explored. To determine the perceived threat to personal safety, a three-step process, similar to that for perceptions of school violence, was undertaken. In this process, questions, some with multiple parts, were selected to investigate personal safety (see Appendix D), values ranging from 1 to 5 were assigned to the student responses in each of the selected questions and an aggregate score was calculated and used as the perceptions of personal safety.

There were five questions with 11 parts regarding the perceptions of threat to personal safety for the Grades 7 to 12 students that were selected. A numeric value was assigned to each of the student responses for a total possible value of 55. Participants were asked to indicate if they felt safe at school or on route to school. In order to simplify scoring, the responses on the ordinal scale were assigned a numerical value according to the column where the response was located on the survey pages. Students used an ordinal scale ranging from "1" to "5" where "NO" or "1" indicated that the statement was "not at all" or "never" true about feeling safe, "no" or "2" indicated "not really" or "hardly ever" true, "some" or "3" indicated "sometimes" or "somewhat" true about feeling safe, "yes" or "4" indicated "often" or "most of the time" feeling safe and "YES" or "5" indicated "definitely" or "always" true about feeling safe. Participants were also asked to indicate their degree of concern for being physically, socially, verbally, or sexually bullied or harassed. The scale used was similar to the previous scale but it was arranged in the reverse order where "5" or "NO" indicated never afraid, "4" or "no" was hardly ever afraid, "3" or "some" indicated sometimes afraid, "2" or "yes" was often afraid and "1" or "YES" was always afraid. Finally, students were asked if they stayed away from school or avoided certain classes because of fear of being bullied. An ordinal scale like the one described for school violence (on page 53) was used to

indicate the degree of concern for being bullied or harassed: “Never in 4 weeks” or “4” down to “1” or “many times a week”; “Don’t Know” was given a score of “0”.

Last, to facilitate the interpretation of results, the scores for each area of focus were totaled to produce an aggregate score. This total score was used to indicate each student’s perceived threat for personal safety. The total aggregate score indicated that the student with the greater total score perceived more personal safety or felt less afraid than did those who had the lower scores.

From Table 2 *Summary of Grades 7 to 12 Student Perceptions of Personal Safety*, the data showed that 75.6% (n = 195) of the students in Grades 7 to 12 reported that in the previous four weeks, they never felt unsafe or afraid of school violence while 20.1% (n = 52) felt that way only once or twice. The data also showed that 4.3% (n = 11) of the respondents had total aggregate scores of less than 34. While these students reported that they did experience feeling unsafe sometimes or afraid of experiencing school violence every week, other students reported that they felt this way many times a week. No students reported an aggregate score below 12. This result indicated that no students felt unsafe or afraid at all times when they were at school or on the way to school.

Table 2

Summary of Grades 7 to 12 Perceptions of Personal Safety

Grades 7 to 12 Perceptions of Personal Safety			
Ranges for Aggregate Totals for Responses	Response Options For Feeling Safe or Afraid	Numbers of Students	Percent of Students
45 to 55	YES (Safe) or Never in 4 Weeks (Afraid)	195	75.6%
34 to 44	yes (Safe) or Once or Twice (Afraid)	52	20.1%
23 to 33	some (Safe) or Every Week (Afraid)	8	3.1%
12 to 22	no (Safe) or Many Times (Afraid)	3	1.2%
0 to 11	NO (Safe) or Don't Know (Afraid)	0	0.0%

**N = 258

It can be observed that many students felt safe when at school over the previous four weeks. While 75.6% (n =195) reported not being afraid or feeling safe, there were 24.4% (n = 63) of the students who did feel afraid or unsafe during the same time period. For some students these feelings occurred every week.

Math Marks

Third, the nature of the math mark perceptions was explored. Unlike the previous two parts, the perception of math marks had only one question. To facilitate the exploration of math mark data, a numeric value was assigned to the mark selection of each student.

Participants were asked to use the provided ordinal scale to indicate their perceived performance in math. The scale used by students went in increments from “Below 50” to “80 to 100”. A score of “1” to “5” was used where “5” indicated a mark of “80 to 100” or “A”, “4” indicated a mark of “70 to 79” or “B”, “3” indicated a mark of “60 to 69” or “C”, “2” indicated a mark of “50 to 59” or “D” and “1” indicated a mark “Below 50” or “F”.

From Table 3 *Summary of Grades 7 to 12 Student Perceptions of Math Marks* below, the data showed that 43.3% (n = 109) of the students in Grades 7 to 12 reported perceived marks in the “80 to 100” response option. Table 3 also shows fewer students reported marks in the “60 to 69”, “50 to 59” and “Below 50” response options compared to the higher mark options.

Table 3

Summary of Grades 7 to 12 Perceptions of Math Marks

Grades 7 to 12 Perceptions of Math Marks			
Ranges for Mark Response Options	Response Options	Numbers of Students	Percent of Students
80 to 100	A—5	109	43.3%
70 to 79	B—4	75	29.8%
60 to 69	C—3	50	19.8%
50 to 59	D—2	14	5.6%
Below 50	F--1	4	1.6%

**N = 252

It can be observed that while 43.3% (n = 109) students perceive their marks in math to be in the highest response option, 7.2% (n = 18) of the students reported marks at the lower response options.

ELA Marks

Last, the nature of the data for the ELA mark perceptions was explored. Like the math mark section there was only one question. To facilitate the exploration of ELA mark data, a numeric value was assigned to each student's selection for ELA marks.

Participants were asked to indicate their perceived performance in ELA. Students used the same scale that was used for math perceptions. This scale went in increments from "Below 50" to "80 to 100". A score of "1" to "5" was used where "5" indicated a mark of "80 to 100" or "A", "4" indicated a mark of "70 to 79" or "B", "3" indicated a mark of "60 to 69" or "C", "2" indicated a mark of "50 to 59" or "D", "1" indicated a mark "Below 50" or "F".

From Table 4 *Summary of Grades 7 to 12 Student Perceptions of ELA Marks*, the data showed that 33.3% (n = 83) of the students in Grades 7 to 12 reported marks in the "80 to 100" range while 11.2% reported marks below 60%.

It can be observed that the largest percentage of students perceived their marks to be in the "80 to 100" response options for both math and ELA. However, there were 10% more students who reported this response option in math compared to those students who reported the response option in ELA. Also fewer students reported perceived marks below 60% in math compared to ELA.

Table 4

Summary of Grades 7 to 12 Perceptions of ELA Marks

Grades 7 to 12 Perceptions of ELA Marks			
Ranges for Mark Response Options	Response Options	Numbers of Students	Percent of Students
80 to 100	A—5	83	33.30%
70 to 79	B—4	81	32.50%
60 to 69	C—3	56	22.50%
50 to 59	D—2	22	8.40%
Below 50	F—1	7	2.80%

**N = 249

The first part of the analysis investigated the nature of the data. The next part investigated the four hypotheses for the Grades 7 to 12 sample.

Testing the Hypotheses

In this section the four hypotheses were investigated. The investigation began with an examination of the relationships of school violence to both the math and ELA marks. After this investigation, the relationship of the personal safety to both the math and ELA marks was undertaken.

School Violence and Math Marks

To discover the relationship between the perceptions of school violence and the self-reported marks in math for Grades 7 to 12 students, it was hypothesized that as the perceptions of school violence increase, the self-reported marks in math would decrease.

Table 5 *Kendall's tau-b Correlations between Perception of School Violence and Perception of Math Marks* indicated that the correlation between the perceptions of school violence and the perception of math marks was significant. Of the students (n = 252) who responded to the survey and included a math perception, there is a negative correlation of tau-b = -.163 (Kendall's tau-b), significant at the .05 level for a 1-tailed test. This correlation offers some support to the hypothesis that as perceptions of school violence increase for Grades 7 to 12 students, they will also report lower perceptions of math marks.

Table 5

Kendall's tau-b Correlations between Perception of School Violence and Perception of Math Marks

Correlations

			Grades 7 to 12 Student Perception of Violence	Grades7 to 12 Student Perception of Math Mark
Kendall's tau-b	Grades7 to 12 Student Perception of Violence	Correlation Coefficient	1.000	-.163**
		Sig. (1-tailed)		.000
		N	261	252
	Grades 7 to 12 Student Perception of Math Mark	Correlation Coefficient	-.163**	1.000
		Sig. (1-tailed)	.000	
		N	252	252

**Correlation is significant at the 0.01 level (1-tailed).

To produce Table 6 *Kruskal-Wallis Test of Ranked Data for School Violence According To Math Mark Groups,* the perception of school violence scores were ranked and grouped according to

the math mark response options. The Kruskal-Wallis test produced a Chi-Square value of 60.000 with degrees of freedom of 4 and a significance value of less than .05 ($H(4) = 60.000$, $p < .05$). This Kruskal-Wallis test result indicated that a difference exists between one or more math mark groups and their associated perceptions of school violence.

Table 6

Kruskal-Wallis Test of Ranked Data for School Violence According to Math Mark Groups

Test Statistics[a,b]

	Violence Rank
Chi-Square	60.000
df	4
Asymp. Sig.	.000

a. Kruskal Wallis Test

b. Grouping Variable: High School Student Perception of School Violence Experienced

Because the Kruskal-Wallis test cannot identify which math groups were different in their perceptions of school violence, a selection of groups for testing contrasts was made. The *Mann-Whitney Test* was used to identify which of the math groups were different in the way they reported the perceptions of violence. The selection was based upon the study of Price et al. (2002) that showed differences in perceptions of violence and demonstrated behaviour between students who reported A's and those who reported F's. The groups selected in this study were the "80 to 100", "60 to 69", "50 to 59" and the "Below 50" response options. Because the "80 to 100" mark response option was the highest mark selection, this response option was compared to each of the lower groups. The Bonferroni correction method for critical value of significance was applied.

Because three comparisons were conducted the significance value of $p < .05$ was divided by three to produce a corrected significance value of $p < .0166$.

Table 7 *Mann-Whitney Test Comparisons of the "80 to 100"Response Options with "60 to 69", "50 to 59" and "Below 50" for Grades 7 to 12* showed the results of the *post hoc* tests. When Test 3 that tested the "60 to 69" response option and Test 2 that tested the "50 to 59" response option were compared with the "80 to 100" response option, the resulting p values were significant ($p <.0166$). The Mann-Whitney test produced a result that showed that the "80 to 100" response option (Mdn = 7.0) appeared to differ from both the "60 to 69" response option (Mdn = 12.0) and "50 to 59" (Mdn = 20.0) response option. Test 3 showed a $U = 2055.5$, $p < .0166$, $r = -.352$ while Test 2 showed a $U = 423.5$, $p < .0166$, $r = - .723$. On the other hand, Test 1 which compared the "Below 50" response option to the "80 to 100"response option found that "p" values were not significant ($p >. 0166$). These results indicated that differences exist between how that the "80 to 100" math group reported perceptions of school violence compared to how the "60 to 69" and "50 to 59" groups reported school violence.

Table 7

Mann-Whitney Test Comparisons of the "80 to 100" Response Option with "60 to 69", "50 to 59" and "Below 50" Response Options for Grades 7 to 12

Ranks

Grades 7 to 12 Student Perceptions of Math Mark		N	Mean Ranks	Sum of Ranks	Test Statistic	
					Mann-Whitney U	Asymp. Sig. (1-tailed)
Test 3	"80 to 100"	109	73.86	8050.50	2055.500	0.006
	To					
	"60 to 69"	50	93.39	4669.50		
Test 2	"80 to 100"	109	58.89	6418.50	423.500	0.003
	To					
	"50 to 59"	14	86.25	1207.50		
Test 1	"80 to 100"	109	56.41	6149.00	154.000	0.160
	to					
	"Below 50"	4	73.00	292.00		

**Grouping Variable: Grades 7 to 12 Perceptions of Math Marks

School Violence and ELA Marks

To discover the relationship between the perceptions of school violence and the self-reported marks in ELA for Grades 7 to 12 students, it was hypothesized that as the perceptions of school violence increase, the self-reported marks in ELA would decrease.

Table 8 *Kendall's tau-b Relating the Perceptions of School Violence to the ELA Marks,* showed that the correlation between the perceptions of school violence and the perception of ELA marks was negatively correlated and non-significant (tau-b = -.036 , p (one tailed) > .05). Of the

students (N = 249) who responded to the survey and included an ELA perception, there was a correlation of tau-b = -.036. This value is not significant at the .05 level for a 1-tailed test.

Table 8

Kendall's tau-b Relating the Perceptions of School Violence to ELA Marks

Correlations

			Grades 7 to 12 Student Perception of Violence	Grades 7 to 12 Student Perception of ELA Mark
Kendall's tau-b	Grades 7 to 12 Student Perception of Violence	Correlation Coefficient	1.000	-.036
		Sig. (1-tailed)		.227
		N	261	249
	Grades 7 to 12 Student Perception of ELA Mark	Correlation Coefficient	-.036	1.000
		Sig. (1-tailed)	.227	
		N	249	249

**N = 249

This correlation did not support the hypothesis that as students in Grades 7 to 12 reported higher perceptions of school violence they would also report lower perceptions of ELA marks.

Similarly when the Grades 7 to 12 perceptions of school violence scores were ranked and grouped according to the ELA mark response options (Table 9 *Kruskal-Wallis Test of Perceptions of School Violence Rank and ELA Marks*), the Kruskal-Wallis test indicated that there was no significant relationship between the ELA marks and perceptions of school violence ($H(4) = 5.065$, $p > .05$).

Table 9

Kruskal-Wallis Test of Perceptions of School Violence Rank and ELA Marks.

Test Statistics[a,b]

	Violence Rank
Chi-Square	5.065
Df	4
Asymp. Sig.	.281

a. Kruskal Wallis Test

b. Grouping Variable: High School Student Perception of ELA Mark

As the Kruskal-Wallis result was not significant for perception of school violence and ELA marks, there were no differences found between the way the ELA mark groups reported their perceptions of school violence. Because the test was not significant, no *post hoc* test procedures were conducted.

Personal Safety and Math Marks

To discover the relationship between the perceptions of personal safety and the self-reported marks in math for Grades 7 to 12 students, it was hypothesized that as the perceptions of personal safety increase, the self-reported marks in math would increase.

From Table 10 *Kendall's tau-b Relating the Perceptions of Personal Safety and Perceptions of Math Marks,* the correlation between the perception of personal safety and the perception of math marks was positively correlated and significant. Of the students (n = 252) who responded to the survey and included a math perception, there was a correlation of tau-b = +.095. This value is significant at the .05 level for a 1-tailed test. This correlation offers some support to the hypothesis

that as students in Grades 7 to 12 perceived more personal safety they would also report higher perceptions of math marks (tau-b = +.095, $p < .05$)

Table 10

Kendall's tau-b Relating the Perceptions of Personal Safety and Perceptions of Math Marks

Correlations

			Grades 7 to 12 Student Perception of Personal Safety	Grades 7 to 12 Student Perception of Math Mark
Kendall's tau-b	Grades 7 to 12 Student Perception of Personal Safety	Correlation Coefficient	1.000	.095*
		Sig. (1-tailed)		.027
		N	261	252
	Grades 7 to 12 Student Perception of Math Mark	Correlation Coefficient	.095*	1.000
		Sig. (1-tailed)	.027	
		N	252	252

**Correlation is significant at the 0.05 level (1-tailed).
**N = 252

When the Grades 7 to 12 perceptions of personal safety scores were ranked and grouped according to the math mark response options, the Kruskal-Wallis test showed a Chi-Square value of 6.071 with a degree of freedom of 4 and a non-significant result ($H(4) = 6.071$, $p > .05$). This result was presented in Table 11 *Kruskal-Wallis Test Relating the Personal Safety Ranks to the Perceptions of Math Marks*. These results indicated that there were no differences in how the different math mark groups reported perceptions of personal safety.

Table 11

Kruskal-Wallis Test Relating the Personal Safety Ranks to the Perceptions of Math Marks.

Test Statistics[a,b]

	Safety Rank
Chi-Square	6.071
Df	4
Asymp. Sig.	.194

a. Kruskal Wallis Test
b. Grouping Variable:
High School Student
Perception of Math Mark

The Kruskal-Wallis Test found no differences between the way that the math mark groups reported the perceptions of personal safety. Because this result for perceptions of personal safety and math marks was not significant, no *post hoc* test procedures were conducted on the data.

Personal Safety and ELA Marks

To discover the relationship between the perceptions of personal safety and the self-reported marks in ELA for Grades 7 to 12 students, it was hypothesized that as the perceived levels of personal safety increase, the self-reported marks in ELA would increase.

From Table 12 *Kendall's tau-b Relating Perception of Personal Safety to Perceptions of ELA Marks*, the correlation between the perception of personal safety and the perception of ELA marks was positively correlated and non-significant ($r = +.052$, p (one tailed) $> .05$). Of the students ($n = 249$) who responded to the survey and included an ELA perception, there was a correlation of tau-b = +.052. This value was not significant at the .05 level for a 1-tailed test.

Table 12

Kendall's tau-b Relating Perception of Personal Safety to Perceptions of ELA Marks

Correlations

			Grades 7 to 12 Perception of Personal Safety	Grades 7 to 12 Perception of ELA Mark
Kendall's tau-b	Grades 7 to 12 Perception of Personal Safety	Correlation Coefficient	1.000	.052
		Sig. (1-tailed)		.146
		N	261	249
	Grades 7 to 12 Perception of ELA Mark	Correlation Coefficient	.052	1.000
		Sig. (1-tailed)	.146	
		N	249	249

** N = 249

This correlation does not support the hypothesis that as the perceptions of personal safety for Grades 7 to 12 students increase, they will also report higher perceptions of ELA marks.

When the Grades 7 to 12 perceptions of personal safety scores were ranked and grouped according to the ELA mark response options, the Kruskal-Wallis test showed a Chi-Square value of 5.496 with a degree of freedom of 4 and a non-significant result ($H(4) = 5.496$, $p > .05$). This result is presented in Table 13 *Kruskal-Wallis Test Relating Personal Safety Ranks to the Perceptions of ELA Marks*. These results indicate that there were no differences in how the different ELA mark groups reported perceptions of personal safety.

Table 13

Kruskal-Wallis Test Relating Safety Rank to the Perceptions of ELA Marks

Test Statistics[a,b]

	Safety Rank
Chi-Square	5.496
Df	4
Asymp. Sig.	.240

a. Kruskal Wallis Test
b. Grouping Variable: High School Student Perception of ELA Mark

Because the Kruskal-Wallis result for perceptions of personal safety and ELA marks was not significant, no *post hoc* test procedures were conducted on the data.

It has been demonstrated that the perceptions of marks for math, but not for ELA, are correlated to the perceptions of school violence experienced by the Grades 7 to 12 students. Also, it has been demonstrated that differences exist between how the mark groups report their perceptions of school violence. These differences were demonstrated between how the “80 to 100” math group reported perceptions of school violence compared to how the “60 to 69” and “50 to 59” groups reported school violence. In addition, the perceptions of marks in math, but not ELA, are correlated to the perceptions of personal safety. However, no differences were found between the math mark groups in their reported perceptions of personal safety.

The next section of the analysis focused on the Grades 4 to 6 data. The data for this group were analyzed in a manner consistent with the analysis for the Grades 7 to 12 data. There were

fewer students in this analysis and there were some differences in the questions asked in each section. However, the scoring pattern remained consistent with the Grades 7 to 12 data.

Analysis of Data for Grades 4 to 6

The second stage of this study examined the data for the Grades 4 to 6 students. In this section, the examination of the data followed the same process as that for the Grades 7 to 12 data. The investigation began with an examination of the nature of the data. Following this first analysis, each of the four hypotheses was investigated as they were applied to the Grades 4 to 6 students.

Nature of the Data

The Grades 4 to 6 data regarding perceptions of school violence was explored using the same three-step procedure as was used when investigating the Grades 7 to 12 sample. The three steps were: the selection of the questions, the assignment of values to the response options and the determination of a net score that was considered to be the perception of school violence.

School Violence

There were ten questions, with 32 parts, selected from three areas of bullying, observing bullying and observing others being bullied (see Appendix C). These questions were used to determine the perception of school violence for Grades 4 to 6 students. The questions inquired about the frequency of being bullied, bullying others or witnessing others being bullied either physically, socially, verbally, electronically, or racially over the previous four weeks. A major area that was not part of the Grades 4 to 6 surveys was the area of sexual harassment (it was included with the Grades 7 to 12 surveys).

Next a numeric value was assigned to the responses selected by the students. Participants were asked to indicate their selections of frequency of exposure to school violence using response options for frequency of incidents. In order to simplify scoring, the response options were assigned

a numerical value according to the column where the responses were located on the survey pages. These selections and values ranged from “4” (“Never in 4 weeks”) to “1” (“Many times a week”). A score of “0” was applied to the last response option of (“Don’t Know). The same options were used for participants to indicate their experiences with racial discrimination as either a victim or as a perpetrator. One question with 11 parts used the same scale with the exception of the “0” as there was not a “Don’t Know” option. The total possible aggregate score for the Grades 4 to 6 students was 128 from 10 questions with 32 parts and a maximum score of 4 on each part.

In the last step totals of the individual scores for all questions were used to produce one net score. Because “Don’t Know” was a rare response, only two scores of less than 32[8], were flagged for investigation. These two students had not included selections for perceptions of marks in math and ELA, so they were excluded from the analysis. For the remaining students who answered with “Don’t Know” as a response, this value was already included in the aggregate score for the individual students. To facilitate the interpretation of the results when investigating the hypotheses, all scores were subtracted from 128. In this way, the net score indicated that the students with the greater net figure perceived being harassed or bullied, bullying or witnessing others being bullied more frequently than did the students with lower scores.

The data about the frequency of exposure to school violence were summarized and used to produce Table 14 *Summary of Grades 4 to 6 Student Perceptions of School Violence*. It can be seen that 5.2% (n = 8) of the students in Grades 4 to 6 reported that in the previous four weeks, they never experienced school violence while 76.5% (n = 117) experienced it only once or twice and 17% (n = 26) experienced it on a weekly basis. These results were lower than those of the Grades 7 to 12 which reported 11.5% never experiencing school violence while 80.1% experienced it once or twice and 7.3% experienced it on a weekly basis. It can be observed that most students reported

experiencing school violence as a participant or a witness during the previous four weeks, while a few reported experiencing school violence on a weekly basis.

Table 14

Summary of Grades 4 to 6 Perceptions of School Violence

Grades 4 to 6 Perceptions of School Violence			
Ranges for Net Differences for Responses	Response Options	Numbers of Students	Percent of Students
0	Never in 4 Weeks	8	5.20%
1 to 32	One or Twice	117	76.50%
33 to 64	Every Week	20	13.10%
66 to 90	Many Times a Week	6	3.90%
	Not Included	2	1.30%

**N = 153

Personal Safety

Next, the nature of the data for the Grades 4 to 6 perceptions of personal safety was explored. To determine these perceived levels, the three-step process was repeated to determine questions for inclusion, to assign values to the response options and to determine an aggregate score that was used as the perception of personal safety. One area of difference between this survey and the Grades 7 to 12 survey was the question about skipping particular classes because of fear. Unlike the Grades 7 to 12 students who had multiple teachers and courses, the Grades 4 to 6 students were

assigned to one classroom with one teacher all day. The Grades 4 to 6 students would probably skip school rather than skip class.

There were four questions selected to determine the perceptions of personal safety (see Appendix E). These questions included the degrees of feeling safe at school, feelings of safety on the way to school, degrees of feeling afraid of being physically, verbally, socially, bullied or harassed at school, and how often the students had skipped school out of fear of bullying during the previous four weeks.

To assign a numeric value to perception of personal safety, each of the responses to the questions was scored individually for a possible total of 20. Participants were asked to indicate if they felt safe at school or on route to school. Students were to use response options ranging from “1” to “5” where “NO” or ”1” indicated that the statement was “not at all” or “never” true about feeling safe, “no” or “2” indicated “not really” or “hardly ever”, “some” or “3” indicated “sometimes” or “somewhat” true about feeling safe, “yes” or “4” indicated “often” or “most of the time” and “YES” or “5” indicated “definitely” or “always” true about feeling safe. Participants were also asked to indicate their degree of concern about being physically, socially, verbally bullied or harassed. The scale used was similar to the previous scale but it was arranged in the reverse order where “5” or “NO” indicated never afraid, “4” or “no” was hardly ever afraid, “3” or “some” indicated sometimes afraid, “2” or “yes” was often afraid and “1” or “YES” was always afraid. Finally, students were asked if they stayed away from school because of fear of being bullied. Response options like those used for bullying were used (never in 4 weeks or “4” down to a value of “1” for many times a week); “Don’t Know” was given a value of “0”.

To facilitate interpretation of results, the scores for the questions were totaled to produce an aggregate score. The total score was used as the perception of personal safety. This aggregate score

indicated that the students with the higher total perceived greater personal safety or felt less afraid than did those who had the lower scores.

From Table 15 *Summary of Grades 4 to 6 Student Perceptions of Personal Safety,* it can be seen that 63.0% (n = 96) of the students in Grades 4 to 6 reported that in the previous four weeks, they never felt unsafe or afraid of school violence while 31.2% (n = 47) felt it only once or twice and 5.8% (n = 8) were afraid on a weekly basis. No students had aggregate scores below "3" indicating that they never felt safe or avoided school because of fear of school violence. These results were lower than those of the Grades 7 to 12 which reported 75.6% never feeling unsafe or

Table 15

Summary of Grades 4 to 6 Perceptions of Personal Safety

Grades 4 to 6 Student Perceptions of Personal Safety			
Ranges for Aggregate Totals for Responses	Response Options For Feeling Safe or Afraid	Numbers of Students	Percent of Students
17 to 20	YES (Safe) or Never in 4 Weeks (Afraid)	96	63.0%
13 to 16	yes (Safe) or Once or Twice (Afraid)	47	31.2%
9 to 12	some (Safe) or Every Week (Afraid)	6	4.5%
4 to 8	no (Safe) or Many Times (Afraid)	2	1.3%
0 to 3	NO (Safe)	0	0.0%

**N = 151

afraid while 20.1% experienced it once or twice and 4.3% experienced it on a weekly basis. It can be observed that most students reported not feeling unsafe or afraid during the previous four weeks, while a few reported feeling unsafe and afraid on a weekly basis.

Math Marks

Next, the nature of the data for the math mark perceptions was explored. Like the mark selections of the previous section, there was only one question. To facilitate the exploration of math mark data, numeric values were assigned to the response options that students selected for their math marks.

Participants were asked to use the provided scale to indicate their levels of perceived performance in math. The scale that students used went in increments from “Below 50” to “80 to 100”. A score of “1” to “5” was used where “5” indicated a mark of “80 to 100” or “A”, “4” indicated a mark of “70 to 79” or “B”, “3” indicated a mark of “60 to 69” or “C”, “2” indicated a mark of “50 to 59” or “D” and “1” indicated a mark “Below 50” or “F”.

From Table 16 *Summary of Grades 4 to 6 Student Perceptions of Math Marks*, the data showed that 50.7% (n = 75) of the Grades 4 to 6 respondents reported marks in the “80 to 100” response option while another 25.7% (n = 38) selected the “70 to 79” response option and 6% reported marks below 60% (n = 9). A larger percentage of students in Grades 4 to 6 reported marks in the “80 to 100” response option compared to the percentage of students in Grades 7 to 12 (43.3%). Both the Grades 4 to 6 and Grades 7 to 12 showed reported perceptions of marks decreasing as the selection of mark response options decreased. More students in Grades 4 to 6 reported perceptions of marks in the “Below 50” response option than did students in Grades 7 to 12.

Table 16.

Summary of Grades 4 to 6 Perceptions of Math Marks

Grades 4 to 6 Perceptions of Math Marks			
Ranges for Mark Response Options	Response Options	Numbers of Students	Percent of Students
80 to 100	A—5	75	50.7%
70 to 79	B—4	38	25.7%
60 to 69	C—3	26	17.6%
50 to 59	D—2	4	2.7%
Below 50	F—1	5	3.3%

**N = 148

ELA Marks

Last, the nature of the data for the ELA mark perceptions was explored. This section like the previous marks sections had only one question. To facilitate the exploration of ELA mark data, numeric values were assigned to the response options selections that students selected for ELA marks.

Participants were asked to indicate their levels of perceived performance in ELA. Students were to use response options that went in increments from “Below 50” to “80 to 100”. A score of “1” to “5” was used where “5” indicated a mark of “80 to 100” or “A”, “4” indicated a mark of “70 to 79” or “B”, “3” indicated a mark of “60 to 69” or “C”, “2” indicated a mark of “50 to 59” or “D” and “1” indicated a mark “Below 50” or “F”.

Table 17 *Summary of Grades 4 to 6 Student Perceptions of ELA Marks*, shows that 54.7% (n = 81) of the Grades 4 to 6 respondents reported marks in the “80 to 100” while another 25.7% (n

= 37) selected the “70 to 79” response option and 8.1% (n = 12) reported marks below 60%. Both the Grades 4 to 6 and Grades 7 to 12 showed reported perceptions of marks decreasing as the mark response options decreased. While the Grades 7 to 12 results showed similar percentages for the highest mark response options, the Grades 4 to 6 percentages began at 54% and decreased by approximately half with each of the following mark response options. Fewer students in Grades 4 to 6 reported perceptions of marks in the “Below 50” response option than did students in Grades 7 to 12.

Table 17

Summary of Grades 4 to 6 Perceptions of ELA Marks

Grades 4 to 6 Student Perceptions of ELA Marks			
Ranges for Mark Response Options	Response Option	Numbers of Students	Percent of Students
80 to 100	A—5	81	54.70%
70 to 79	B—4	37	25.70%
60 to 69	C—3	17	11.50%
50 to 59	D—2	9	6.10%
Below 50	F—1	3	2.00%

**N = 147

The first part of the analysis investigated the nature of the data. The next part investigated the four hypotheses for the Grades 4 to 6 sample.

Testing the Hypotheses

The four hypotheses were investigated for the Grades 4 to 6 student samples. The investigation began with an examination of the relationships of perceptions of school violence to

both the math and ELA marks. After this investigation, the relationships of the perceptions of personal safety to both the math and ELA marks were undertaken.

School Violence to Math Marks

To discover the relationship between the perceptions of school violence and the self-reported marks in math for Grades 4 to 6 students, it was hypothesized that as the perceptions of school violence increase, the self-reported marks in math would decrease.

Table 18 *Kendall's tau-b Correlations between Perception of School Violence and Perception of Math Marks* showed that the correlation between the perceptions of school violence and the Grades 4 to 6 perception of math marks was negatively correlated and significant (Kendall's tau-b = -.126, p (one tailed) < .05). For the 148 (N = 153) students who responded to the survey and included a math perception, there was a correlation of tau-b = -.126. The tau-b value was significant at the $p < .05$ level for a 1-tailed test. This correlation offers some support for the hypothesis that as the perceptions of reported school violence increase, the self-reported marks in math will decrease.

Table 18

Kendall's tau-b Correlations between Perception of School Violence and Perception of Math Marks

Correlations

			Grades 4 to 6 Perceptions of Violence	Grades 4 to 6 Perceptions of Math Mark
Kendall's tau-b	Grades 4 to 6 Perceptions of Violence	Correlation Coefficient	1.000	-.126*
		Sig. (1-tailed)		.024
		N	153	148
	Grades 4 to 6 Perceptions of Math Mark	Correlation Coefficient	-.126*	1.000
		Sig. (1-tailed)	.024	
		N	148	148

**Correlation is significant at the 0.05 level (1-tailed).
**N = 153

When the Grades 4 to 6 perceptions of school violence scores were ranked and grouped according to the math mark response options (Table 19, *Kruskal Wallis Test of Ranked Data for School Violence According to Math Mark Groups*), the Kruskal-Wallis test produced a Chi-Square value of 5.286 with a degree of freedom of 4 and a non-significant value of .259 ($H(4) = 5.286$, $p > .05$). This Kruskal-Wallis test result indicated that no differences exist between how any of the math mark groups perceived school violence.

Table 19

Kruskal-Wallis Test of Ranked Data for School Violence According to Math Mark Groups

Test Statistics[a,b]

	Violence Ordered
Chi-Square	5.286
df	4
Asymp. Sig.	.259

a. Kruskal Wallis Test

b. Grouping Variable: Grades 4 to 6 Perceptions of Math Mark

As the Kruskal-Wallis test for perceptions of school violence and math marks was not significant, no *post hoc* test procedures were run.

School Violence to ELA Marks

To discover the relationship between the perceptions of school violence and the self-reported marks in ELA for Grades 4 to 6 students, it was hypothesized that as the perceptions of school violence increase, the self-reported marks in ELA would decrease.

Table 20 *Kendall's tau-b Relating the Perceptions of School Violence to the ELA Marks* showed that the correlation between the Grades 4 to 6 perceptions of school violence and the perception of ELA marks was negatively correlated and non-significant (tau-b = -.066, p (one tailed) > .05). Of the 148 (N = 153) students who responded to the survey and included an ELA perception, there was a correlation of tau-b = -.066. This value was not significant at the .05 level for a 1-tailed test. This correlation does not support the hypothesis that as perceptions of school violence increases for Grades 4 to 6 students, they will also report lower perceptions of ELA marks.

Table 20

Kendall's tau-b Relating the Perceptions of School Violence to the ELA Marks

Correlations

			Grades 4 to 6 Perceptions of Violence	Grades 4 to 6 Perceptions of ELA Mark
Kendall's tau-b	Grades 4 to 6 Perceptions of Violence	Correlation Coefficient	1.000	-.066
		Sig. (1-tailed)		.154
		N	153	148
	Grades 4 to 6 Perceptions of ELA Mark	Correlation Coefficient	-.066	1.000
		Sig. (1-tailed)	.154	
		N	148	148

**N = 148

When the Grades 4 to 6 perceptions of school violence scores were ranked and grouped according to the ELA mark response options, the Kruskal-Wallis test shown in Table 21 *Kruskal-Wallis Test of Ranked Data for School Violence According to ELA Mark Groups* produced a Chi-Square value of 5.103 with a degree of freedom of 4 and a non-significance value of $p > .05$ ($H(4) = 5.103$, $p > .05$). This Kruskal-Wallis test result indicated that no differences exist between how any of the ELA mark groups perceived school violence.

Table 21

Kruskal Wallis Test of Ranked Data for Perceptions of School Violence According to ELA Mark Groups

Test Statistics[a,b]

	Violence Ordered
Chi-Square	5.103
df	4
Asymp. Sig.	.277

a. Kruskal Wallis Test

b. Grouping Variable: Grades 4 to 6 Perceptions of ELA Mark

Because the Kruskal-Wallis result for perceptions of school violence and ELA marks was not significant, no *post hoc* test procedures were run.

From the analysis of perceptions of school violence compared to math and ELA marks, there was a significant correlation found between the math marks and perceived school violence but not the ELA marks and perceived school violence. Also, there were no differences found between the relationships of the math groups and their associated perceptions of school violence.

Personal Safety to Math Marks

To discover the relationship between the perceptions of perceived safety and the self-reported marks in math for Grades 4 to 6 students, it was hypothesized that as the perceptions of personal safety increase, the self-reported marks in math would increase.

It can be observed from Table 22 *Kendall's tau-b Relating the Perceptions of Personal Safety and Perceptions of Math Marks* that the correlation between the Grades 4 to 6 perception of

personal safety and the perception of math marks was positively correlated and significant (tau-b = +.214, p (one tailed) < .05). Of the 148 (N = 154) students who responded to the survey and included a math mark perception, there was a correlation of tau-b = +.214. This value was significant at the .05 level for a 1-tailed test. This correlation offers some support to the hypothesis that as students in Grades 4 to 6 perceive more personal safety they will also report higher perceptions of math marks (tau-b = +.214, p < .05).

Table 22

Kendall's tau-b Relating the Perceptions of Personal Safety and Perceptions of Math Marks

Correlations

			Grades 4 to 6 Perceptions of Personal Safety	Grades 4 to 6 Perceptions of Math Mark
Kendall's tau-b	Grades 4 to 6 Perceptions of Personal Safety	Correlation Coefficient	1.000	.214**
		Sig. (1-tailed)	.	.001
		N	154	148
	Grades 4 to 6 Perceptions of Math Mark	Correlation Coefficient	.214**	1.000
		Sig. (1-tailed)	.001	.
		N	148	148

**Correlation is significant at the 0.01 level (1-tailed).
**N = 148

When the Grades 4 to 6 perceptions of personal safety scores were ranked and grouped according to the math mark response options (Table 23 *Kruskal Wallis Test Relating the Personal Safety (Ranked) to the Perceptions of Math Marks*), the Kruskal-Wallis test produced a Chi-Square value of 10.892 with a degree of freedom of 4 and a significance value of p < .05 (H (4) = 10.892,

p < .05). This Kruskal-Wallis test result indicated that a difference exists between one or more math mark groups and their associated perceptions of school violence.

Table 23

Kruska-Wallis Test Relating the Personal Safety (Ranked) to the Perceptions of Math Marks.

Test Statistics[a,b]

	Safety Ordered
Chi-Square	10.892
Df	4
Asymp. Sig.	.028

a. Kruskal Wallis Test
b. Grouping Variable: Grades 4 to 6 Perceptions of Math Mark

As the Kruskal-Wallis result indicated that a difference exists between the reporting of perceptions of personal safety and math marks, the result was subjected to *post hoc* test procedures. The grade “80 to 100” response option was selected for comparison to the “60 to 69”, “50 to 59” and the “Below 50” response options to see if there were any differences between perceptions of math marks to personal safety between groups. The *Bonferroni correction* method for critical value of significance was applied at p < .0166 because a total of three comparisons were run.

When using Table 24 *Mann-Whitney Test Comparisons of the "80 to 100" Response option with "60 to 69", "50 to59" and "Below 50" Response options for Perceptions of Personal Safety,* it can be seen that when Test 3 (“60 to 69” response option) was conducted, the resulting p values were significant (p < .0166). The Mann-Whitney test produced a result that showed that the “80 to 100” response option (Mdn = 75.5) differed from the “60 to 69” response option (Mdn = 99.5)

showing a U = 637.5, p < .0166, r = -.522. On the other hand, when Test 1 and Test 2 which compared the “Below 50” and the “50 to 59” response options to the “80 to 100” group were conducted, the results produced p values that were not significant p >. 0166. These results indicated that only one of the three tests was significant. There was a difference found between the way that the “80 to 100” group reported their perceptions of personal safety to the way the “60 to 69” group reported their perceptions.

Table 24

Mann-Whitney Test Comparisons of the “80 to 100” Response Option with “60 to 69”, “50 to 59”, and “Below 50” Math Response Options for Perceptions of Personal Safety

Ranks

Grades 4 to 6 Student Perceptions of Math Mark		N	Mean Ranks	Sum of Ranks	Test Statistic	
					Mann-Whitney U	Asymp. Sig. (1-tailed)
Test 3	"80 to 100"	75	55.5	4162.50	637.50	0.004
	to "60 to 69"	26	38.02	988.50		
Test 2	"80 to 100"	75	41.03	3077.50	72.50	0.039
	to "50 to 59"	4	20.63	82.50		
Test 1	"80 to 100"	75	41.60	3120.00	105.00	0.048
	to "Below 50"	5	24.00	120.00		

Personal Safety to ELA Marks

To discover the relationship between the perceptions of personal safety and the self-reported marks in ELA for Grades 4 to 6, it is hypothesized that as the perceptions of personal safety increase, the self-reported marks in ELA will increase.

Table 25 *Kendall's tau-b Relating the Perceptions of Personal Safety (Ranked) to the ELA Marks* showed that the correlation between the perception of personal safety and the Grades 4 to 6 perception of ELA marks was positively correlated and significant. Of the 148 (N = 154) students who responded to the survey and included an ELA perception, there was a correlation of tau-b = +.132. This value was significant at the .05 level for a 1-tailed test. This correlation offers some support to the hypothesis that as students in Grades 4 to 6 perceived more personal safety, they will also report higher perceptions of ELA marks.

Table 25

Kendall's tau-b Relating the Perceptions of Personal Safety (Ranked) to ELA Marks

Correlations

			Grades 4 to 6 Perceptions of Personal Safety	Grades 4 to 6 Perceptions of ELA Mark
Kendall's tau-b	Grades 4 to 6 Perceptions of Personal Safety	Correlation Coefficient	1.000	.132*
		Sig. (1-tailed)		.025
		N	154	148
	Grades 4 to 6 Perceptions of ELA Mark	Correlation Coefficient	.132*	1.000
		Sig. (1-tailed)	.025	
		N	148	148

**Correlation is significant at the 0.05 level (1-tailed)
**N = 148

When the Grades 4 to 6 perceptions of personal safety scores were ranked and grouped according to the ELA mark response options, the Kruskal-Wallis test produced a Chi-Square value of 9.391 with a degree of freedom of 4 and a non-significance value of $p > .05$ ($H(4) = 9.391$, $p > .05$). This result was shown in Table 26 *Kruskal Wallis Test Relating the Personal Safety Ranks to the Perceptions of ELA Marks.* These results indicated that there were no differences in how the different ELA mark groups reported perceptions of personal safety.

Table 26

Kruskal-Wallis Test Relating the Personal Safety Ranks to the Perceptions of ELA Marks

	Safety Ordered
Chi-Square	9.391
Df	4
Asymp. Sig.	.052

a. Kruskal Wallis Test

b. Grouping Variable: Elementary Perceptions of ELA Mark

Because the Kruskal-Wallis result for perceptions of personal safety and ELA marks was not significant, no *post hoc* test procedures were run.

It has been demonstrated that the perceptions of marks for math, but not for ELA, are related to the perceptions of school violence experienced by the Grades 4 to 6 students. In addition, the perceptions of marks in math and ELA are related to the perceptions of personal safety. However, only differences between how the “80 to 100” math group reported perceptions of personal safety compared to the reports of “60 to 69” group were demonstrated.

The previous analyses examined the relationship of school violence and marks and personal safety and marks as individual factors influencing marks. Each factor was analyzed independently of the other.

Chapter Summary

School violence, personal safety and marks, as measured in this study, are non-parametric data. Kendall's tau-b was used for testing the relationships between perceptions of school violence and perceptions of personal safety with marks. The data were also tested for significant differences between the reports of different mark groups with their associated perceptions of school violence or personal safety. The Krustal-Wallis test was used to test for differences. The study by Price et al. (2002) provided the basis for conducting post-hoc comparisons of the "80 to 100" mark response options with the lower mark response options after significant Krustal-Wallis results were derived from the analyses of school violence and personal safety with marks.

Table 27 *Summary of School Violence Findings For Grades 4 to 6 and Grades 7 to 12* and Table 28 *Summary of School Violence Findings For Grades 4 to 6 and Grades 7 to 12* presents the results of this study. In Table 27 it can be seen that the perceptions of marks for math, but not for ELA, are related to the perceptions of school violence experienced by the both the Grades 4 to 6 and the Grades 7 to 12 students. Although it has been demonstrated for the Grades 7 to 12 group that differences exist between how that the "80 to 100" math group reported perceptions of school violence compared to how that the "60 to 69" and "50 to 59" mark groups reported school violence, there were no differences between math groups for the Grades 4 to 6 students. Table 28 shows that the perceptions of marks in math, but not ELA, are correlated to the perceptions of personal safety for

Table 27

Summary of Study Findings For Grades 4 to 6 and Grades 7 to 12

Perceptions of School Violence to Marks

Relationships	Statistical Analysis	
	Grades 7 to 12 Results	Grades 4 to 6 Results
School Violence to Math Marks	Kendall's Tau-b sig.	Kendall's Tau-b sig.
	Kruskal-Wallis Test sig.	Kruskal-Wallis Test n.s.
	Mann-Whitney Test comparing to the 80 to 100 60 to 69 sig. 50 to 59 sig. Below 50 n.s.	Mann-Whitney Test not run
School Violence to ELA Marks	Kendall's Tau-b n.s.	Kendall's Tau-b n.s.
	Kruskal-Wallis Test n.s.	Kruskal-Wallis Test n.s.
	Mann-Whitney Test not run given non significant Kruskal-Wallis Test	Mann-WhitneyTest not run given non significant Kruskal-Wallis Test

Table 28

Summary of Study Findings For Grades 4 to 6 and Grades 7 to 12

Perceptions of Personal Safety to Marks

Relationships	Statistical Analysis			
	Grades 7 to 12 Results		Grades 4 to 6 Results	
Personal Safety to Math Marks	Kendall's Tau-b	sig.	Kendall's Tau-b	sig.
	Kruskal-Wallis Test	n.s.	Kruskal-Wallis Test	sig.
	Mann-Whitney Test given non significant Kruskal-Wallis Test	not run	Mann-Whitney Test comparing to the 80 to 100	
			60 to 69	sig
			50 to 59	n.s.
			Below 50	n.s.
Personal Safety and ELA Marks	Kendall's Tau-b	n.s.	Kendall's Tau-b	sig.
	Kruskal-Wallis Test	n.s.	Kruskal-Wallis Test	n.s.
	Mann-Whitney Test given non significant Kruskal-Wallis Test	not run	Mann-Whitney Test given non significant Kruskal-Wallis Test	not run

the Grades 7 to 12 students, while the perceptions of marks in both math and ELA are correlated to the perceptions of personal safety for Grades 4 to 6 students. However, while no differences were found between how either the Grades 7 to 12 math or ELA mark groups reported the perceptions of personal safety, differences were found between how the Grades 4 to 6 math mark group reported

their perceptions of personal safety. The Mann-Whitney test demonstrated that differences existed between how the “80 to 100” math group reported perceptions of personal safety compared to the reports of “60 to 69” group.

In the next section, the results of this research are discussed in light of other research. In addition, these findings and their implications for the school division are discussed.

CHAPTER 5: CONCLUSIONS

In light of the scarcity of academic research on the subject area of this study, the aim of the present research was to uncover the relationships between perceived school violence, perceived personal safety and marks in math and ELA in a rural Manitoba school division.

Summary of Results

The findings of this study have implications for this rural Manitoba school division. Perceptions of school violence were found to be significantly correlated to both Grades 4 to 6 and Grades 7 to 12 math, but not ELA mark perceptions. While the Grades 7 to 12 analysis showed that differences existed between how the math groups reported perceptions of school violence, the *post hoc* tests showed that the specific differences were between how the “80 to 100” and the “60 to 69” math mark groups and how the “80 to 100” and the “50 to 59” mark groups reported school violence. However, there were no significant differences found between how the Grades 4 to 6 math mark groups reported their perceptions of school violence. On the other hand, while perceptions of personal safety were found to be significantly related to Grades 7 to 12 math, but not the ELA mark perceptions, the Grades 4 to 6 perceptions of marks in both math and ELA were related to the perceptions of personal safety. In addition, as the Grades 4 to 6 data showed that the specific differences were between how math mark groups reported perceptions of personal safety, the *post hoc* tests indicated that differences existed between the reports of personal safety by the “80 to 100” and the “60 to 69” math mark groups. There were no differences found between the ELA mark groups in the way the Grades 4 to 6 reported their perceptions of personal safety. Also, no differences were found between the Grades 7 to 12 math mark groups reports of personal safety.

Discussion

The results of this study add to the growing body of research on school violence, personal safety and academic outcomes. Given that the investigation examined the responses from most Grades 4 to 12 students within the division, the results have specific implications for administrators, students and teachers of this school division. The results of this study frame the discussions that follow regarding the nature of the data, the relationships of school violence and personal safety to mark perceptions, and future research.

As schools are mandated to provide a safe and supportive learning environment for all students, and as they are accountable for student academic achievement, the findings of this study provide baseline data about student perceptions of school violence, personal safety and marks. This baseline reference data can be used when making decisions about spending money, allocating time, acquiring and utilizing resources, and training staff. The current perceptions of students regarding school violence, personal safety and marks can serve as the starting point against which the results of future actions can be compared.

Nature of the Data

There was a trend in both the Grades 4 to 6 and Grades 7 to 12 results that showed many students reported few experiences of school violence over the month while a few students reported many experiences during the previous week. These perceptions of school violence were consistent with the study by Espelage and Holt (2001) which showed that some students reported few or no episodes whereas others reported multiple episodes. Of the 148 Grades 4 to 6 students, 13.1% (n = 20) experienced violence each week and 3.9% (n = 6) experienced it many times a week. Of the 258 Grades 7 to 12 students, 5.4% (n = 14) reported experiencing violence each week and 1.9% (n = 5) experienced it many times a week. From these results, it can be seen that 17% of the Grades 4

to 6 students and 7.3% of the Grades 7 to 12 students reported being bullied, victimized or observed school violence on a weekly basis. While more Grades 4 to 6 students reported more experiences with school violence over a week compared to the Grades 7 to 12, the Grades 7 to 12 reported more school violence a few times a month compared to the Grades 4 to 6.

When the students who reported experiencing school violence once or twice in four weeks were included, the percentages change significantly. To the 17% of the Grades 4 to 6 who reported weekly exposure there was an additional 76% (n = 117) which brought the total to 95% (n = 150) of the students who reported exposure to school violence in a four-week period. Similar results occurred when the 80% (n = 209) of the students in Grades 7 to 12 who reported exposure once or twice were added to the 7.3% who reported experiencing it weekly. This represented 87% (n = 228) of the Grades 7 to 12 students who reported that they experienced school violence in a four-week period. Only 12% (n = 30) of the Grades 7 to 12 and 5% (n = 8) of the Grades 4 to 6 students indicated that they were not exposed to bullying or victimization or observed school violence in the previous four weeks. Such figures are flags to the school division that the issues of school violence must be addressed.

In the current research, the results showed that a higher percentage (17%) of Grades 4 to 6 students reported more frequent exposure to school violence than did the Grades 7 to 12 (7.3%) students. These results were in agreement with those of Smith et al. (1999), Craig and Pepler (2004), Bradshaw et al. (2007) and Davidson and Demaray (2007) who placed the highest frequencies of reported bullying behaviours at the lower grades and who concluded that higher frequency of bullying occurred around the Grades 6 and 7 levels. Because the results of this study indicated that 94.8% of students in Grades 4 to 6 and 88.9% of Grades 7 to 12 reported experiencing some type of school violence during the previous four weeks, it could be concluded

that for many Grades 4 to 12 students in this school division, school violence is a part of the school climate.

Similar support for the research findings came from a study by Hoover, Oliver and Hazler (1992). These authors stated that 88% of junior and high school students reported observing bullying and 70% to 90% experienced victimization. Whereas Hoover et al. reported student behaviours of victimization and observers as separate results, the current study did not supply a similar breakdown of data. The current study used the scores from witnessing, being victimized by or perpetuating the school violence to determine aggregate and net difference scores for exposure to school violence. Although these aggregate and net difference scores obscured the single scores for the individual witnessing, victimization and perpetuation of school violence, the high percentage of students who reported exposure to violence aligned with the results of the study by Hoover et. al. The results of this study indicated that the students perceive the schools in this small rural Manitoba school division as having a high level of school violence.

The patterns of reporting personal safety for the Grades 4 to 6 and Grades 7 to 12 are similar. There was a trend in both the Grades 4 to 6 and Grades 7 to 12 results that showed many students reported feeling unsafe or afraid at school during the previous four weeks. These perceptions of exposure to school violence were much higher than reported in a study by Billingsley (2003) and Boulton et al. (2009). These researchers found that while 85% and 90% of students reported feeling safe, 9% to 15% reported feeling unsafe. In this study, 4.5% (n = 6) of the Grades 4 to 6 students felt unsafe or afraid every week and 1.3% (n = 2) felt unsafe or afraid many times each week. The Grades 7 to 12 students reported that 3.1% (n = 8) felt unsafe or afraid every week and 1.2% (n = 3) felt that way many times a week. From these results, it can be seen that more Grades 4 to 6 students report feeling unsafe on a weekly basis compared to the Grades 7 to 12

students. While 6% of the Grades 4 to 6 students reported feeling unsafe weekly, 4% of the Grades 7 to 12 reported that they do not feel safe each week. When the students who reported experiencing feeling unsafe or afraid for personal safety once or twice in four weeks were included, the percentages changed significantly. The Grades 4 to 6 students reported feeling unsafe more than did the Grades 7 to 12 students. When the 20% (n = 52) of the Grades 7 to 12 students who reported feeling unsafe or afraid once or twice were added to the 4% who experienced it weekly, a total of 24% (n = 63) of the students reported feeling unsafe or afraid in a four-week period. However, to the 6% of the Grades 4 to 6 who reported weekly exposure, there was an additional 31% (n = 47) which brought the total to 37% (n = 55) of the students who felt unsafe or afraid in a four week period. Conversely, more Grades 7 to 12 students reported feeling safe at school compared to the Grades 4 to 6 students. While 63% (n = 96) of the Grades 4 to 6 reported not feeling afraid, 75% (n = 195) of the Grades 7 to 12 indicated that never felt afraid or unsafe during the previous four weeks. These figures are flags to the school division that the issues of personal safety must be addressed.

In the current study, although 63% of the Grades 4 to 6 and the 75% of the Grades 7 to 12 students reported feeling safe, the full implication of these results for this school division became apparent when the reversals of the statistics were examined. One quarter of the Grades 7 to 12 students and more than one third of the Grades 4 to 6 students reported that they did not feel safe at all times when going to or attending schools of this division. These figures were much higher figures than the 9% to 15% of Billingsley (2003) and Boulton et al. (2009). Although these findings showed that many students in both groups reported feeling unsafe or afraid during the previous four weeks, a greater percent of Grades 4 to 6 students reported feeling afraid during the previous four weeks, compared to the Grades 7 to 12 students.

The percentages of perceptions of school violence were compared to the percentages of perceptions of personal safety for both Grades 4 to 6 and Grades 7 to 12. Because a large majority of students reported exposure to school violence while a smaller majority reported feeling safe within the same four-week period, a complex interaction between these two variables appeared to operate within the school environment. These variables appear to operate independently of each other as well as in concert with each other when relating to the perceptions of mark performance. This conclusion was supported by Hernandez and Seem (2004) who stated that there was no direct relationship between fear, controls against violence and school context; the relationships are interactive.

Research shows that it is not enough to implement programs that target school violence and make the environment appear to be free of violence (Boulton et al., 2009). Their research shows that efforts of schools to remedy school violence through blanket approaches of presentations, speakers and mass student participation in “pink t-shirt days”[9], were insufficient. It was also important that students perceive the environment as safe (Hernandez & Seem, 2004). In other words, it was also important that students feel safe within the schools. Programs must be implemented to address how students feel about their safety within the school. Although bullying was related to the increased levels of threat to personal safety (Beran & Tutty, 2002), Hernandez and Seem, (2004) stated that there was not a direct linear relationship and they were interactive. The fact that the relationships of school violence and fear were interactive suggests that programs implemented by schools should have a two-pronged approach. While one prong addresses the issues of violence within the school, the other prong should address how students feel about their safety within the building.

School violence and personal safety are factors within the environment. The data from the current study indicated that there were two different and measurable factors operating in the environment. While the study found that 88% of the Grades 7 to 12 students perceived some form of school violence during the previous four weeks compared to 94% of the Grades 4 to 6 students, 12% of the Grades 7 to 12 and only 6% of the Grades 4 to 6 reported that they did not perceive school violence during the same time period. Because the analysis considered school violence as a single variable and not separate variables, comparisons cannot be made regarding the percentages of students involved as bullies and victims. However, as bullies and victims were witnesses to the school violence (just as on-lookers are), witnessing of the incidents could be compared. Previous research indicated that between 60% and 88% percent of a school's student body witnesses acts of school violence (Hawkins et. al., 2001; NEA, 2007). In the school division under study, however, the percentages were higher at 88% to 94%.

While only 63% of the Grades 4 to 6 and 76% of the Grades 7 to 12 students reported feeling safe during the four weeks prior to the surveys, 37% of the Grades 4 to 6 and 24% of the Grades 7 to 12 students reported feeling unsafe during the same time. As this analysis considered personal safety to be a single variable that was a summative evaluation of their feelings about the environment, it is important to point out that other research looked at victimization as the measure of personal safety (Schwartz et al., 2005; Swahn & Bossarte, 2006). Research indicated that 85% of students report feeling safe at school and 15% report feeling unsafe (Billingsley, 2003). In this division, a greater percentage of students reported feeling unsafe compared to the research literature.

While this study found that both school violence and personal safety operate within the school environment, the results fell outside the range of findings of other reports. Because the

findings indicated more students reported they were exposed to school violence and fewer students reported feeling safe at the schools of the division compared to previous research in other jurisdictions, the school division must take steps to address each of these factors with well-planned strategies.

Given the mandate by the province for the school board to provide a safe environment for all students, and for the schools to prepare a code of conduct that requires students to behave in a respectful manner (Public Schools Act, Clause 41(1) (b.1)), strategies must be planned and implemented without delay. The questionable impact of previous programs of mass participation coupled with the high percentages of reported school violence and the low percentages of students who felt safe, indicate that there remains more work to be done. According to Benbenishty et al. (2003) when students witnessed incidents of school violence they reported that the school had a serious violence problem. Thus, the high percentages of student reporting exposure to school violence in this rural Manitoba study suggests that students have seen much school violence. Benbenishty et al. went on to say that only direct personal experience with personal violence moved students to indicate that they felt a threat to personal safety. According to Forlin and Chambers (2003) students who reported high levels of victimization also reported lower perceptions of safety. The high percentages of students feeling unsafe in this rural Manitoba study suggest that many students experienced direct personal violence.

This data indicates that the school division should have two foci as it moves to fulfill the provincial mandate to create a safe and caring school. The first focus would work towards a reduction in the amount and frequencies of school violence. Programs implemented would target the bullying behaviour, victimization and the witnessing of violence. The second focus would work

towards increasing the perceptions of personal safety. Programs implemented would target both the look of safety in the environment and the feelings of safety reported by students.

Testing the Hypotheses

School Violence to Math Marks

The hypothesis that as the perceived level of school violence increases, the self-reported marks in math will decrease was investigated. It was found that the relationship between the perception of school violence and perception of math marks was negatively correlated and significant for both the Grades 4 to 6 and the Grades 7 to 12 students. Although the Grades 7 to 12 sample resulted in a significant Kendall's tau-b = -.163 and the Grades 4 to 6 sample resulted in a Kendall's tau-b = -.126, these correlations have small effect sizes (approximately 1.5% for the Grades 4 to 6 and 2.6% for the Grades 7 to 12) according to Field (2005). However, these results do indicate that as perceptions of school violence increase the perception of math marks decrease for both the Grades 4 to 6 and the Grades 7 to 12 students.

The Kruskal-Wallis tests conducted on Grades 7 to 12 data indicated that differences exist between the way that the math mark groups reported their perceptions of school violence. The *post hoc* tests run on this data found significant differences between the way students in the "80 to 100" math mark response option reported their exposure to school violence as compared to the way the students in the "50 to 59" and "60 to 69" mark response options reported their exposure to school violence. On the other hand, the Kruskal-Wallis tests conducted on Grades 4 to 6 data did not indicate that differences existed between the math mark groups.

Because programs to reduce school violence were related to a positive school climate (Luiselli et al., 2005), strategies that reduce school violence would be a benefit. Some research literature suggests that math was a good indicator of the relationship of school violence to student

performance (Burkam et al., 2004). The findings of the rural Manitoba study agree with these conclusions for the Grades 7 to 12 students.

Personal Safety to Math Marks

The hypothesis that as the perception of personal safety increases, the self-reported marks in math will increase was investigated. It was found that the perception of personal safety compared to math marks was positively correlated and significant for both the Grades 4 to 6 and Grades 7 to 12 students. While the Grades 7 to 12 sample resulted in a significant Kendall's tau-b = +.095, the Grades 4 to 6 sample produced a Kendall's tau-b = +.214. Although these results indicate that for these students as the perceptions of personal safety increase, the perceptions of performances in math also increase, the correlations have small effect sizes (approximately 4.5% for Grades 4 to 6 and 1% for Grades 7 to 12) (Field, 2005).

The Kruskal-Wallis tests conducted on Grades 4 to 6 data indicated that differences exist between the way that the math mark groups reported their perceptions of personal safety. The *post hoc* tests run on this data found significant differences between the way students in the "80 to 100" math mark response option reported their perceptions of personal safety as compared to the way the students in the "60 to 69" mark response options reported their perceptions of personal safety. On the other hand, the Kruskal-Wallis tests conducted on Grades 7 to 12 data did not indicate that differences existed. Previous research reported similar conclusions (Chen, 2007; Ripski & Gregory, 2009). While other studies reported on the feelings of safety and victimization as variables for perceptions of personal safety (Lee & Shute, 2010; Ripski & Gregory, 2009), this study investigated perceptions of personal safety as a separate variable. Previous research found that students with higher grades were less likely to report high levels of victimization (Bauman, 2007) compared to students with lower grades.

Both Grades 7 to 12 and Grades 4 to 6 math marks perceptions appeared to be related to the perceptions of personal safety. These findings were supported by the research of Luiselli et al. (2005) and Chen (2007). Luiselli et al. (2005) and Chen (2007) stated that violence and bullying created an unsafe learning environment that negatively impacted academic performance. Goleman (1995) concluded that social and emotional factors presented formidable interference to student efforts to learn. As adolescents between 10 to 16 years of age were going through a stage of physical, emotional and social changes they might not have the coping skills to effectively handle physical and emotional situations (Stoppler & Shiel, 2014). Given that reported incidents of school violence declines after students entered high school, personal safety might not be considered a significant issue at school for many students in Grades 7 to 12 of this division.

The frequencies of the reported feelings of being safe or unafraid for personal safety might contribute to the relationships determined through the analysis. As 63% of the Grades 4 to 6 and 75% of the Grades 7 to 12 students felt safe or unafraid, this percentage might have contributed to the low positive and significant relationships with math marks. These results supported the hypothesis that personal safety was related to the academic performance of students, especially the younger students. Ratner, Chiodo, Covington, Sokol et al. (2006) found that feelings of safety were positively related to most cognitive measures. They concluded that increased feelings of safety might allow children to focus on critical school tasks to which they might otherwise be unable to attend. This increased focus was reflected in academic performance.

Non-significant differences were found between mark groups. Although it has been found that as perceptions of school violence increase, perceptions of marks decrease and as perceptions of personal safety increase, perceptions of marks increase, it was interesting to note that no significant differences were found between the math mark groups and the way personal safety was reported by

the Grades 7 to 12 students and the way school violence was reported by the Grades 4 to 6 students. These results indicate that no one math mark group in Grades 4 to 6 perceived school violence to any greater degree than any other math group. Similarly, no one math mark group in Grades 7 to 12 perceived personal safety to any greater degree than any other math mark group. According to Mcevoy and Welker (2000), academic performance was related to the content of the environment; it could vary over time for a given level of antisocial behaviour. It could be speculated that because perceptions of personal safety and perceptions of school violence were interactive within an environment and because there was less school violence reported by Grades 7 to 12 students, all math mark groups might feel equally safe. Because there was more reported violence by Grades 4 to 6 students, and they were going through puberty and did not possess mature coping skills, all math mark groups may have equal exposure to school violence.

Because programs to increase feelings of personal safety were related to a positive school climate (Ripski & Gregory, 2009), strategies that increases perceptions of personal safety should be a benefit to the school. Previous research suggests that math was an indicator of the relationship of personal safety to student performance (Luiselli et al., 2005). The findings of this study agree with this conclusion for Grades 4 to 6 students.

School Violence to ELA Marks

The hypothesis that as the perceptions of school violence increase, the self-reported marks in ELA will decrease was examined. It was found that the relationship between the perception of school violence and ELA marks was negatively but non-significantly correlated for both the Grades 7 to 12 and Grades 4 to 6 student samples. In addition, there were no differences found between the way the ELA mark groups reported their perceptions of school violence.

Personal Safety to ELA Marks

The hypothesis that as the perceptions of personal safety increase, the self-reported marks in ELA would increase was investigated. It was found that the perception of personal safety compared to ELA marks was positively correlated and significant for Grades 4 to 6 but not for Grades 7 to 12 students. Also, for both the Grades 4 to 6 and the Grades 7 to 12 students, there were no differences found between the ways the ELA mark groups reported their perceptions of personal safety.

Non-significant correlations determined between variables may be explained. The lack of a significant correlation of the ELA marks to either the perceptions of school violence or personal safety could be due to a variety of reasons.

First, the CPHA surveys separated the time of the peak frequencies for school violence (Grades 6 to 9), as reported in the literature, between the two different surveys (Grades 4 to 6 and Grades 7 to 12). Second, the results indicated could be due to chance where actual differences were not detected between the ELA mark perceptions and perceptions of school violence or personal safety. Third, the result could be accurate given the context of personalities and structures of this school division. Mcevoy and Welker (2000) stated that academic achievement was specific to the conditions of the environment which included but are not limited to: student personalities, informal and formal structures, school violence and feelings of personal safety. In addition, academic performance could vary between subject areas as well as over time for a given level of antisocial behaviour. Fourth, the result could be due to differences in the level of instruction and support. Various researchers suggest that reading receives instruction and support outside the school which compensates for any disruptions in learning due to disruptive or antisocial behaviour demonstrated within the environment (Beran, 2008; Burkam, et al., 2004). This instruction would likely be received by students without the perceived threats to personal safety and the perceptions of school

violence that are found in the school environment. Any reductions of disruption in learning would likely allow students to focus on their academic performances (Hernandez & Seem, 2004) and would likely create a more accurate perception of academic performance.

While Price et al. (2002) found that students who reported D's and F's were 2.5 times more likely than those with A's and B's to have concerns about their personal safety and victimization, this study found non-significant results for ELA and math when comparing both the Grades 4 to 6 and the Grades 7 to 12 "80 to 100" or "A" mark response option to the "50 to 59" or "D" and the "Below 50" or "F" mark response options. This lack of significance found when the tests were run to determine differences between the way that ELA and math mark groups reported their perceptions of school violence or personal safety could be due to a variety of reasons such as sample characteristics, instructional practices or feelings of student-teacher connectedness.

As each mark response option was treated as a separate sub-group of the study sample in this analysis, the sub-groups who reported marks within the "Below 50" response option were small in size. The "Below 50" sub-group for Grades 4 to 6 students were n = 5 for math and n = 3 for ELA and the sub-group sizes for Grades 7 to 12 were n = 4 for math and n = 7 for ELA. According to Research Advisors (2014), there is an inverse relationship between sample size and the margin of error. They state that a small sub-group sample size yields a large margin of error which reduces the ability to estimate the true population of the sub-group with accuracy. According to Tomas (2014), a small group size requires large differences between groups to be significant. For both the Grades 4 to 6 and Grades 7 to 12 samples, the values of the mean rankings of the math and ELA sub-groups indicated that significant differences in the reports of school violence by the "Below 50" sub-groups compared to the "80 to 100" sub-groups were not found. Similarly, significant

differences between the feelings of personal safety reported by the “Below 50” sub-groups compared to the “80 to 100” sub-groups were not found.

Second, in Manitoba, inclusive and differentiated instruction within classrooms is an expectation. Instruction is to focus on student success in learning the outcomes of math and ELA. As stated on the Manitoba Education webpage, teachers are to “differentiate instruction by providing multiple and varied, developmentally appropriate and authentic learning tasks, activities and opportunities, to help all students progress and achieve the learning outcomes” (Government of Manitoba, 2013c). Also stated on the webpage, teachers are to provide scaffolding to support strategic learning by using “modeling and explicit instruction to provide learners with enough support and guidance that they can understand concepts or perform tasks that would otherwise be slightly beyond their unassisted efforts” (Government of Manitoba, 2013c). By promoting success through scaffolding strategies and differentiated instruction, teachers provided positive feedback to the students about their achievement.

Using Gordon’s (2013) explanation of perception, positive feedback can serve as the external factor used in the perception of marks. Although feelings of success vary between people, the feelings serve as a motivation to continue to apply effort (Covey, 2013). These feelings may act as the internal factor in the perceptions of marks. Positive feedback with good feelings could work together to create an expectation of success in math and ELA. This expectation could then be reported as the perception of marks. In this study, it was found that few students in both Grades 4 to 6 and Grades 7 to 12 reported marks in the “Below 50” response option in both ELA and math. The small Grades 4 to 6 and Grades 7 to 12 samples working in conjunction with the focus on success within the classroom might contribute to the lack of differences reported between the ELA and math mark groups and their perceptions of school violence and personal safety.

The relationship between the teachers and the students could account for the non-significant relationship found in the study. In the study by Konishi et al. (2010), although high levels of reported bullying was related to lower math and reading scores, students who perceived a positive connectedness with teachers were more likely to have higher math and reading scores than students who did not report a positive connectedness with teachers. They found that a positive relationship with teachers works to buffer the negative relationship between bullying and academic performance for boys only. The authors concluded that positive relationships with teachers could counteract the effects of a negative school climate on academic performance. The lack of significance could be related to a positive connection between the students who reported lower marks and their teachers.

This study offered insights into whether there were differences in the perceptions of school violence, perceptions of personal safety and perceptions of marks. It appears that students view school violence from different perspectives—the external exposure to violence as a participant or witness and the internal threat to personal safety. However, although the relationship of school violence and perception of personal safety with marks can be individually determined, the interaction of perceptions of school violence with perceptions of personal safety was not included with this study. This area of investigation will be for future research. From the perspectives of this study, however, implications for the school division can be identified. School violence and personal safety were two variables that should be addressed as issues that operate in conjunction with the each other. It is important that students not be subjected to school violence and equally important that students feel safe within the school environment.

The findings of this study can be used to help guide the planning of strategies for interventions to reduce school violence and to increase feelings of personal safety.

Guide to Planning

In addressing the issues related to planning strategies to reduce school violence and to increase personal safety, two authors, in particular, help to frame the process of planning.

According to Holcomb (2004), schools need to set a limit on priorities. Because each priority will have more than one strategy and data will have to be collected to monitor the implementation and impact of the changes that are introduced, schools can only effectively target three to five priorities if positive outcomes are to be expected. Because this research indicated that the dynamics of the school climate—school violence and personal safety—were related to perceived mark performance of students, this research can be used to help set some of the selected priorities.

According to Gordon (2013), both external influences and internal dialogue shape perceptions and create reality for a person. In this study many students witnessed school violence and some students were victims of school violence. Both of these experiences are external as they were determined by others in the environment. Still other students felt fear when in the school environment; these feelings are internal assessments of the environment. Drawing on the explanation proposed by Gordon, the external influences (the school violence) and the internal dialogue (feelings of safety) can shape student perceptions, one of which is academic performance. Thus, the school division can implement programs guided by the student reports of school violence and personal safety. They can selectively implement strategies to address the grade level differences in reported perceptions of marks in math and ELA.

To help create a positive school culture, school violence and personal safety should be addressed using separate strategies. As the study found that 89% of the Grades 7 to 12 students and 95% of the Grades 4 to 6 students reported incidents of witnessing or participating in violence at

least a few times during the previous four-week period, there is a need for strategies that focus on the reduction of violence. Schools, through monitoring and interventions, could address the external environment and reduce the frequencies and types of school violence. A school-wide program of restitution training in conjunction with Positive Behavioural Intervention System (PBIS) strategies could be used to make structural changes to school operations (Luiselli et al., 2005; Porter, 2007). Positive Behavioural Intervention is a school-wide system of support for students that include proactive strategies for defining, teaching and supporting appropriate student behaviours in classrooms and within the school to create positive school environments. Restitution[11] training is a program which unites a school under a social contract of beliefs, behaviour and responsibility (Gossen, 1997); it could be used in conjunction with the PBIS program. Interventions with students focus on the beliefs and expectations everyone has for appropriate behaviour within the school.

According to Dake, Price and Telljohann (2003) the most effective methods of bullying reduction involves a “whole school approach”. Their suggestion for practices in the whole school approach include assessing the problem, planning school conference days, providing better supervision at recess, forming bullying prevention coordination groups, encouraging parent-teacher meetings, establishing classroom rules against bullying, holding classroom meetings about bullying, requiring talks with the bullies and victims and scheduling talks with the parents of involved students. According to Luiselli et al. (2005), a school-wide implementation of the PBIS strategies for Grades K to 5 students in an urban community brought about a reduction of office referrals and suspensions of students from school. Mergler, Vargas and Caldwell (2014) reported that PBIS was an effective alternative to the exclusionary and punitive practices for all grade levels.

Proactive Actions

In this section, the findings of this study are used to outline actions the school division and the schools within the division could take to proactively address the issues of violence and feelings of personal safety within the schools.

Steps to address school violence and personal safety can be planned. Currently, the schools in the division are emphasizing the social skills components of the health and social studies curriculums to foster better relationships between students. In addition, some schools within the division are piloting a intervention program of restitution training for teachers and administrators. Related to these steps the school division could further address the issue of school violence through the use of one or more of the following: PBIS identification and intervention programs, supervision schedules, additional staffing, and appropriate response training programs. Programs such as counseling, restorative justice and social skills training to address the issues of personal safety are also warranted (Vreeman & Carroll, 2007).

Future surveys could measure the type and frequency of school violence in support of the above programs. In addition, students can be interviewed to obtain qualitative input regarding the effectiveness of the implemented strategies to reduce incidents of school violence. Student responses to questions about strategy and implementation practices could be used to help identify the strengths and weaknesses of current programs. Alternative strategies could be implemented to replace those shown to be ineffective to reduce the number and frequency of incidents of violence within the school.

In addition, schools within the division, through relationship building and positive interactions, could implement strategies to increase students' feelings of personal safety within the school. As the study found that 25% of the Grades 7 to 12 students and 37% of the Grades 4 to 6

students reported feeling unsafe at least a few times during the previous four-week period, the schools could focus on programs to foster feelings of personal safety. For example, a school-wide program of character education and restorative justice could be used in conjunction with other strategies to promote emotional intelligence. Character education as promoted by Novick, Kress and Elias (2002) outlines a program to build character into the school climate by promoting skill development for social interaction between students, staff and community. This program incorporates universal values with explicit instruction in character skills, problem prevention, coping skills and contributory service. Restorative justice is a program that focuses on developing relationships between students and between students and school administrators. It teaches student how their actions affect the school community and sets out to right the wrongs of poor student behaviour. This program challenges students to hold each other accountable for behaviour and to right the wrongs of inappropriate behaviour (Mergler et al. 2014). Restorative circles are used by students, teachers and administrators to identify the harms and effects of the conflict and to work towards a resolution to the harm. In addition to these programs, the personal safety issues could be supported through restitution and social skills training (Elias, Zins, Weissberg, Frey et al., 1997; McGrath & Noble, 2010) as well as the PBIS system.

School-wide interventions are recommended (Vreeman & Carroll, 2007). However, there is a cautionary note in that the success of school-wide interventions is inconsistent (Smith, Schneider, Smith & Ananiadou, 2004). Although we know that school violence and personal safety are related (Hernandez and Seem, 2004) and evidence points to the need for school-wide intervention programs (Dake et al., 2003; Vreeman & Carroll, 2007), success is based upon implementation of strategies and school contexts of personalities and structures (Mergler et al., 2014; Smith et al., 2004). According to Douglass (2009), it cannot be assumed that a school viewed

by teachers and students as having a positive school climate has fewer issues with bullying than does a school with a more negative climate. Because environments appear to be safe, there will not necessarily be a reduction of school violence as school violence can change over time in form, intent and means. Even though the school environment may appear to be safe to adults, it may not feel safe for students. According to Tatum (2009), there are four major fears that students experience at school: fear of being ridiculed, harassed, threatened, and ostracized. As it is student perceptions that create the reality of the school climate, students must feel that they are safe. Therefore, an effective program must focus on strategies that address both components of school climate. As the way that programs are implemented can limit the effectiveness of the intervention strategies, individual school contexts of personalities, formal structures, etc. must be monitored. Data collection and analysis must become part of the school-based practices.

Implementation strategies are required for structured and unstructured areas. As bullying is likely to occur whenever large numbers of students are found in areas with the least amount of structure and adult supervision (Seale, 2004; Thompson & Smith, 2013), it is important that intervention strategies be implemented to address the safety and violence issues. The areas that meet the conditions for bullying to occur are specific to schools but generally they include: the washrooms, playgrounds, lunch rooms, buses, computer sites and hallways. Because the Grades 7 to 12 and Grades 4 to 6 students are spatially separated within the school buildings and temporarily separated according to scheduling of breaks, behavioural expectations specific to the different grade groups must be clarified and reinforced, then supported with increased teacher presence and visibility.

Specific structural strategies to target the different grade levels to create a safe and supportive learning environment within the classroom and the school may be needed. The school

division could selectively implement strategies to address the grade level differences in reported perceptions of marks in math and ELA. First, this research found that Grades 4 to 6 student perceptions of math performance were related to perceptions of school violence and personal safety. As student academic success is an obligation and a priority in this rural school division according to the school division goals, it is incumbent that this issue be addressed efficiently and effectively. According to Tatum (2009), after incidents of violence, although the classroom environment may be safe, fear affects the students' cognitive skills. Any learning cannot resume until the school violence is decreased and personal safety is restored. Second, as training programs, extra staffing and student absenteeism and drop-out rates are costly, the school division cannot afford to invest in programs and other measures that do not accrue results. Based on the information gathered from this research, there is support for the school division to apply additional strategies specific to the different grade levels.

Grade level foci are needed. Because perceptions of personal safety and school violence are related to perceptions of math marks, two foci should guide the development of appropriate strategies. One focus should be tailored to guide schools to develop a safer and more supportive and nurturing environment in which all students can feel safe. While all grade levels would benefit from developing feelings of safety, as the Grades 4 to 6 students are not as mature, with less effective coping skills, they would probably benefit more than the more mature Grades 7 to 12 students. Grades 4 to 6 could receive additional instruction and training in character skills, problem prevention and coping skills. This strategy would compound as the skills training would be revisited and further developed as students progressed from the Grades 4 to 6 levels into the higher grade levels.

The other focus should be tailored to guide schools to reduce school violence. Of course, reduction of school violence should be a focus for all students regardless of grade level. As Grades 4 to 6 students report more bullying than the Grades 7 to 12 do, they would benefit from more bully awareness presentations as well as increased training in restitution and restorative justice. This strategy would compound in effectiveness as the skills training emphasized in the earlier grades would be revisited and further developed as students progress through the higher grade levels.

Although research indicates that academic performance was related to both perceptions of school violence and personal safety (Konishi et al., 2010; Lee & Shute, 2012), the number of strategies implemented to improve academic performance have to be limited for effective implementation (Holcomb, 2004). It is important not only to take action but to be perceived as taking action. Staff training to improve supervision and classroom management to enhance feelings of safety and to reduce incidence of violence would benefit the students (Luiselli et al., 2005; Marachi, Astor, 2007: Benbenishty, Marzano, 2003; Spriggs, Iannotti, Nansel, & Haynie, 2007). The modeling of acceptance and inclusion at all grade levels along with the direct instruction in social skills (McGrath & Noble, 2010), restitution and restorative justice (Mergler et al., 2014) could address the issue of violence and personal safety within classrooms, hallways and buses.

Yearly surveys could provide the data to assess how well the schools are doing in fulfilling their mandates to provide a safe environment for students. Yearly assessments could contribute toward a more in-depth awareness of the perceptions of school violence and perceptions of personal safety and how these perceptions change from year to year. The assessments could contribute to knowledge of how students benefit from the targeted interventions at the Grades 4 to 6 and Grades 7 to 12 levels in each of the areas of school violence, personal safety and marks.

Future Research.

As the data were analyzed, questions were generated that could serve as the focus of future research. Questions from the surveys could be selected to investigate the environment of specific schools so that intervention strategies more appropriate to each school could be developed, measured and analyzed for effectiveness. Specifically, future research could investigate how school violence and personal safety interact with each other and relate to the perceptions of marks within a particular school environment. In this study, the two perspectives were analyzed independently; however, a more in-depth investigation into the dynamics of the interaction is worthy of further investigation.

Although the current research shows a relationship between the perceptions of violence and marks, the perceptions of school violence were grouped as aggregate scores. Future research could dissect the roles of the participants (perpetrators, victims and witnesses to violence) to investigate how the roles are individually related to personal safety and to marks. Based upon the findings, specific strategies to target the respective participants in violence could be implemented to more effectively address the issues of school violence.

As there is an increasing body of evidence which demonstrates that students who are fearful of the school environment may suffer physically, psychologically and academically, future research might look to investigating the components of student fear within the school environment. Given the importance of the social group to the individual when in school (Chirila, 2012), research might want to identify factors of the social group in the school environment that might be related to academic performance.

In this research, only the perceptions of marks were recorded. Future research may want to investigate how actual mark performances in math and ELA are related to perceptions of school violence and personal safety.

Significance of the Study

As was stated previously, this study adds to the body of knowledge surrounding school violence in Canada by focusing on how perceptions of school violence and personal safety are related to perceptions of marks.

This study offers insights into the how the perceptions of school violence, perceptions of personal safety and perceptions of marks differ for Grades 4 to 6 as compared to Grades 7 to 12 students. This study builds on the idea that students perceive school violence from different perspectives—from personal involvement as a participant or as a witness to violence and from a perception of threat to personal safety created by the exposure to school violence. This study focused on whether student perceptions of school violence and personal safety were related to the perceptions of marks.

For the school as a community, the study provides information about how well the school is doing to fulfill its mandate to provide a safe environment for students. It contributes towards a more in-depth awareness of the level of school violence with its relationship to student perceptions of academic achievement. All staff (teachers and support staff) could gain insight into the quality of the social environments found within the classrooms, hallways, and buses. The study may help staff to become aware that perceptions of violence are dynamic and fluid, that these perceptions change over time, and that the perceptions flow with students into and out of different environments within the school building and on the buses. As adults are usually not present when many incidents of school violence and victimization occur, or are present but do not recognize behaviours as bullying

(Dillon, 2010), staff can gain an understanding of the school world that students experience and of the importance of perceived as well as actual safety within the context of the school and classroom.

For other schools, this study provides information about school violence and personal safety in small rural Manitoba schools. Previous studies measured school violence and compared the levels and impacts of school violence between different urban schools (Pepler et al., 2006; Swaim et al., 2006; Elias & Zins, 2003). These studies, however, did not investigate school violence or personal safety within a specific rural school context nor did they examine how that school violence and feelings of safety related to perceptions of marks. Also, previous studies compared student achievement against standardized achievement tests and not to the mark perceptions that students felt they were achieving. The self-reporting of performances in this study is reflective of how individual students perceive both direct and indirect school violence. Because schools are forced to deal with incidents of bullying and victimization, and because safety is a fundamental expectation of schools, student perceptions of safety are areas of concern.

Time is a limited commodity that must be effectively used to address all the expectations put on schools, only two of which are school violence and personal safety. Because time is limited, a few strategies were selected that can produce academic benefits. As this study found that student grade level is related to the relationships of perceptions of school violence and personal safety with marks, it provides support for schools to refocus their approaches and to adjust their strategies for promoting a positive school culture according to the grade levels of students. An awareness of the relationship of grade level to the relationship between perceptions of personal safety and marks might motivate schools to develop a safer and more supportive and nurturing environment that improves student safety and academic achievement. Such efforts may pay dividends, not only to those directly involved in violence and its aftermath, but also to the entire student body.

Limitations

There are six limitations to this research over which the researcher had little control.

First, in this study, the CPHA surveys to investigate the perceptions of school violence that students report are limited to the previous four-weeks. Although this time period allows students to report on their most recent experiences, the research of Eslea and Rees (2001) showed that with greater time frames for reference, the numbers of students who report exposure to school violence increases.

A second limitation refers to the span of grades targeted by each of the CPHA surveys. Research indicates that the peak years for bullying behaviours occur between the ages of 11 and 14 years (Grades 6 to 9). In this study, the Grade 6 students responded to the Grades 4 to 6 surveys while the Grades 7 to 9 students responded to the Grades 7 to 12 surveys. Unfortunately, the only data available to the researcher was from the school division's CPHA Safe School Surveys which divided the peak frequencies of school violence, as reported in the literature, between the two survey groups. Related to this point, is the reality that in rural school divisions there is an increased likelihood that there are grade combinations rather than single grades. For example, in the division under study, there are classrooms that combine Grades 4 and 5 and even Grades 5 to 8.

The third limitation refers to the differences in the way that grading occurs in math and ELA in the elementary Grades 4 to 6. As an administrator in this division, I am aware that the math and ELA courses for Grades 4 to 6 students are not graded according to the same marking system used to assess the performances of Grades 7 to 12 students. While students in Grades 4 to 6 do have some tests that are marked according to a scale that ranges from 0% to 100%, most student assessment at these grade levels is based upon mastery of concepts. The number of errors and their corrections on a regular day form the basis for the student perceptions of math and ELA

performances. For the Grades 7 to 12 students, the school division expects that much of the class-work will be graded according to a rubric and converted to a single evaluative mark out of 100%.

The fourth limitation refers to the issues regarding the high school math and ELA courses and the students completing them. In this school division, unlike the elementary school classes that have only one math and ELA program that all students regardless of school attended must take, the students in high school classes can select from multiple options based on individual considerations of ability, motivation, course completions and course scheduling. The only requirement for high school students is that each student must have at least one math and one ELA course, at each grade level, before graduation. When courses are taken and which courses are taken are up to the school and student. Therefore, it is possible for students to take no courses, one course or more than one math or ELA courses during a given year. For the purposes of this study, the students decided for themselves upon which course to report. Regardless of the courses selected, however, students were asked to determine one mark response option that would represent how they felt they were performing in math and ELA.

A fifth limitation to the study is the omission of data. There were two reasons for the omission of data. First, as some participants did not agree to participate in the original data collection, the Health and Safety Committee passed to the researcher only those surveys they had included in their own research. Due to the nature of some of the questions, one of the Hutterian schools, and possibly other students did not agree to participate in the original survey. Also, because some students were absent on the day of the survey administration, these students did not take part in the survey. Second, some surveys were not useable. Of those surveys received, three students in Grades 7 to 12 and two students from Grades 4 to 6 answered primarily with “Don’t Know” to the questions selected for analysis. As a result, these surveys were not included in the

analysis. This elimination reduced the total number of completed surveys. Also, the use of “Don’t Know” as an option for some questions of the survey permitted students to provide answers to questions which provided no usable data for this study. For a survey to be included in this study, the researcher set a response rate of 90% for selected questions to provide usable data for perceptions of school violence and personal safety.

Sixth, there were some surveys that did not include either a math or ELA perception and as a result, they were eliminated when testing the hypothesis about the relationships between school violence and personal safety and those mark perceptions. For Grades 7 to 12, in total, there were nine surveys not included for math and twelve not included for ELA. For Grades 4 to 6, a total of six surveys were not included in both the math and ELA results.

These limitations impact analysis, the conclusions and the generalization of the results.

Conclusions

The finding showed that a large percentage of students reported experiencing school violence during the previous four weeks. The findings also showed that a large percentage of students reported feeling unsafe when at school or in transit during the previous four weeks. These results indicate that school violence and personal safety are issues that exist within the school environment. In addition it was found that the perceptions of school violence and personal safety are related to perceptions of math performance for both Grades 4 to 6 and Grades 7 to 12. These results indicate that violence and safety are issues that should be addressed to not only improve the school climate but also to promote a positive learning environment.

References

Akiba, M., & Han, S. (2007, March). Academic differentiation, school achievement and school violence in the USA and South Korea. *Compare*, *37*(2), 201-219.

Baker-Henninghama, H., Meeks-Gardnerb, J., Chang, S., & Walker, S. (2009). Experiences of violence and deficits in academic achievement among urban primary school children in Jamaica [Electronic version]. Epidemiology Research Unit, Tropical Medicine Research Institute, University of thee West Indies, Mona, Kinston, Jamaica. Retrieved November 16, 2010 from www. Questia.com.

Barboza, G. E., Scheamberg, L., Oehmhe, J., Korzenieuskie, S., Post, L., & Heraux, G. (2009). Individual characteristics and the multiple contexts of adolescent bullying: A ecological perspective. *Journal of Youth and Adolescence*, *38*, 101-121.

Bauman, S. (2007). Victimization by bullying and harassment in high school: Findings from the 2005 Youth Risk Behaviour Survey in a South-western State. *Journal of School Violence*, *7*(3), 86-104.

Benbenishty, R., & Astor, R. A. (2005). School violence in context: Culture, neighborhood, family, school and gender. Oxford, England: Oxford University press.

Benbenishty, R., Astor, R., & Zeira, A. (2003). Monitoring school violence at the site level: Linking, national, district and school-level data. *Journal of School Violence*, *2*(2), 29-50.

Beran, T. N. (2008). Consequences of being bullied at school. In D. Pepler & W. Craig (Eds.), Understanding and addressing bullying: An international perspective, Bloomington, IN: Author House.

Beran, T. N. & Tutty, L. (2002). Children's reports of bullying and safety at school. *Canadian Journal of School Psychology*, *17*(2), 1-14.

Billingsley, J. (2003). Many kids don't feel safe at school. Retrieved from www.redorbit.com/ news/science/12514/many_kids_dont_feel_safe on September 16, 2014.

Bosacki, S. L., Marini, Z. A., & Dane, A. V. (2006). Voices from the classroom: Pictorial and narrative representations of children's bullying experiences. *Journal of Moral Education, 35*, 231-245.

Bosworth, K., Ford, L., & Hernandaz, D. (2011). School climate factors contributing to student and faculty perceptions of safety in select Arizona schools. *Journal of School Health, 81*(4), 194-201.

Boulton, M., Duke, E., Holman, G., Laxton, E., Nicholas, R., Spells, R., Williams, E., & Woodmansey, H. (2009). Associations between being bullied, perceptions of safety in classroom and playground, and relationships with teacher amoung primary school pupils. *Educational Studies, 35*(3), 255-267.

Boulton, M., Woodmansey, H., Williams, E., Spells, R., Nicholas, B. Laxton, El, Holman, G., & Duke, E. (2012). Associations between peer bullying and classroom concentration: Evidence for mediation by perceived personal safety and relationship with teacher. *Educational Psychology: An International Journal of Experimental Educational Psychology*, *32*(3), 277-294.

Bradshaw, C., Sawyer, A., & O'Brennan, L. (2007). Bullying and peer victimization at school: Perceptual differences between students and school staff [Electronic version]. *School Psychology Review*. *36*(3), 361+. Retrieved Nov 21, 2010 from www.Questia.com.

Brown, S., Birch, D., & Kancherla, V. (2009, October). Bullying perspectives: Experiences, attitudes and recommendations of 9 to 13-year-olds attending health education centers in the United States. *Journal of School Health*, *75*, 384-392.

Buhs, E. S. (2005). Kindergarten children's relatedness to teachers and peers as a factor in classroom engagement and early learning behaviours. *Journal of Applied Research on Learning, 2* (5), 1-20.

Buhs, E. S., & Ladd, G. W. (2001). Peer rejection as an antecedent of young children's school adjustment: An examination of mediating processes. *Developmental Psychology, 37*, 550-560.

Buhs, E. S., Ladd, G. W., & Herald, S. (2006). Peer exclusion and victimization: Processes that mediate the relation between peer group rejection and children's classroom engagement and achievement? *Journal of Educational Psychology*, *98*, 1-13.

Burkam, D., Ready, D., Lee, V. E., & LoGerfo, L. (2004). Social class differences in summer learning between kindergarten and first grade: Model specification and estimation. *Sociology of Education*, *77*(1), 1–31.

Cacioppo, J. T., Hawkley, L. C., Ernst, J. M., Burleson, M., Berntson, G. G., Nouriani, B., & Spiegel, D. (2006). Loneliness within a nomological net: An evolutionary perspective. *Journal of Research in Personality, 40*, 1054-1085.

Canadian Council on Learning (2008, March). Bullying in Canada: How intimidation affects learning [Electronic version]. Retrieved on May 7, 2014 from www.ccl-cca.ca/pdfs/LessonsInLearning/Mar-20-08-Bullying-in-Canad.pdf.

Canadian Public Health Association (2004a). Safe School Study. Retrieved on February 19, 2011 from http://www.cpha.ca/uploads/progs/_/safeschools/safe_school_study_e.pdf.

Canadian Public Health Association (2004b). Safe School Survey. Retrieved on February 19, 2011 from http://www.cpha.ca/uploads/progs/_/safeschools/safe_school_study_e.pdf.

Canadian Public Health Association (2004c). Safe School Toolkit. Retrieved on February 19, 2011

from http://www.cpha.ca/uploads/progs/_/safeschools/safe_school_study_e.pdf.

Carney, J. S., Shannon, D. M., & Murphy, C. (2005). An examination of school violence and safety in south Florida elementary schools. *Journal of School Violence*, *4*(3), 21- 35.

Chen, G. (2007). School disorder and student achievement. *Journal of School Violence*, *6*(1), 27-43.

Chen, G., & Weikart, L. A. (2008) Student background, school climate, school disorder, and student achievement: An empirical study of New York City's middle schools. *Journal of School Violence*, *7*(4), 3–20.

Chirila, T. (2012) Social and psychological implications of bullying in schools. *Journal of Psychological and Educational Research*, *20*(1), 59+.

Crick, N. R. & Grotpeter, J. K. (1995, June). Relational aggression, gender, and social psychological adjustment. *Child Development*, *66*(3), 710-722.

Covey, S. (2013). *The 7 habits of highly effective people: Powerful lessons in personal change*. New York, NY: Free Press

Cowie, H., & Oztug, O. (2008). Pupil' perceptions of safety in school. *Pastoral Care in Education: An international Journal of Personal, Social and Emotional Development*, *26*, 59-67.

Craig, W., & Pepler D. J. (2004). Bullying: A relationship issue for both boys and girls [Electronic version]. *Orbit*, *34*(2), 11. Retrieved on Nov 21, 2010 from www.Questia.com.

Craig, W., & Pepler, D. (2007, May) Understanding bullying: From research to practice. *Canadian Psychology*, *48*(2), 86-94.

Dake, J. A., Price, J. H., & Telljohann, S. K. (2003). The nature and extent of bullying at school. *Journal of School Health*, *73* (5), 173-180.

Danielsen, A. G., Samdal, O., Hetland, J., & Wold, B. (2008). School related social support and students perceived life satisfaction. *Journal of Educational Research, 102*(4), 303-318.

Davidson, L. M., & Demaray, M. K. (2007). Social support as a moderator between victimization and internalizing-externalizing distress from bullying [Electronic version]. *School Psychology Review*, *36*(3), 383+. Retrieved on November 15, 2010 from www.Questia.com.

Dillon, J. (2010, Sept./Oct.). Principals must take the lead in creating an atmosphere where bullying prevention is a school and community goal. *Principal.* Retrieved on November 27, 2014 from www.naesp.org/principal-magasine/principal-sepoct-2010-juggling-act/no-place-bullying.

Douglass, K. R. (2009). *A study of the relationship between group perception of school climate and incidents of bullying at the junior high/middle school level*. Unpublished doctoral dissertation, University of Maine, Farmington, Maine.

Elias, M., Zins, J., Weissberg, R., Frey, F., Greenberg, M., Haynes, N., Kessler, R., Schwab-Stone, M., & Shriver, T. (1997). *Promoting Social and Emotional Learning.* Alexandria, Virginia: ASCD.

Elis, M. J. & Zins, J. E. (2003). Bullying, other forms of peer harassment and victimization in the schools: Issues for school psychology research and practice. *Journal of Applied School Psychology*, *19*(2), 1-5.

Eslea, M. & Rees, J. (2001). At what age are children most likely to be bullied at school? *Aggressive Behaviour*, *27*(6), 419-429.

Espelage, D. L., & Holt, M. K. (2001). Bullying and victimization during early adolescence: Peer influences and psychosocial correlates. *Journal of Emotional Abuse*, *2*, 123-142.

Espelage, D. L., & Holt, M. K. (2007). Dating violence and sexual harassment across the bully victim continuum among middle and high school students. *Journal of Youth and Adolescence*, *36*, 799-811.

Espelage, D., & Swearer, S. (2003). Research on school bullying and victimization: What have we learned and where do we go from here? *School Psychology Review*, *32*, 365-383.

Felix, E. D., & McMahon, S. D. (2006). Gender and multiple forms of peer victimization: How do they influence adolescent psychosocial adjustment? *Violence and Victims*, *21*, 707 – 724.

Field, A. (2005). *Discovering statistics using SPSS (2nd ed)*. Thousand Oaks, California: SAGE Publications Ltd.

Finucane , A. M., Whiteman, M. C., & Power, M. J. (2010). The effect of happiness and sadness on alerting, orienting, and executive attention. *Journal of Attention Disorders, 13*(6), 629-639.

Fleming, C., Haggerty, K., Cataleno, R., Harachi, T., Mazza, J., & Gruman, D. (2005), November). Do social and behavioural characteristics targeted by preventive interactions predict standardized test scores and grades [Electronic version]. *Journal of School Health*, *75*(9). Retrieved on October 28, 2010 from www.Questia.com.

Fletcher, A., Chikobva, P., & Lombard, C. (2008). The relationship between bullying behaviours and high school dropout in Cape Town, South Africa. *Psychological Society of South Africa*, *38*(1), 21-32.

Foltz-Gray, D. (1996). The bully trap. *Teaching Tolerance*, *5*(2), 32-34.

Forlin, C. & Chambers, D. (2003). Bullying and the inclusive school environment. *Australian Journal of Teacher Education, 28*(2). Retrieved on October 15, 2014 from http://ro.ecu.edu.au/ajte/vol28/iss2/2.

Forsberg, C., Thornberg, R., & Samuelsson, M. (2014). Bystanders to bullying: Fourth-to seventh-grade students' perspectives on their reactions. *Research Papers in Education, 29*(5), 557-576.

Glew, G. M., Fan, M., Katon, W., Rivara, F. P., & Kernic, M. A. (2005). Bullying, psychosocial, and academic performance in elementary school. *JAMA Pediatrics, 159*(11)1026-1031.

Glew, G., Rivara, F., & Feudtner, C. (2000). Bullying: Children hurting children. *Pediatrics in Review, 21*, 183-189.

Goldbaum, S., Craig, W. M., Pepler, D. J., & Connolly, J. (2003). Developmental trajectories of victimization: Identifying risk and protective factors. *Journal of Applied School Psychology, 19*, 139-156.

Goldweber, A., Waasdorp, T., & Bradshaw, C. (2013). Examining the link between forms of bullying behaviours and perceptions of safety and belonging among secondary school students. *Journal of School Psychology, 51*, 469-485.

Goleman, D. (1995). Emotional intelligence: Why it can matter more than IQ. New York, NY: Bantam Books.

Gordon, M. (2013). *Three relationship killers: Perception, assumptions and expectation.* Retrieved on Sept. 9, 2014 from Relationship Matters at www.markgordon.ca/three-relationship-killers-perception-assumption-and-expectation.

Gossen, D. (1997). *Restitution restructuring.* Saskatoon, SK: Chelsom Consultants Limited.

Government of Manitoba (2004). *Safe schools charter*. [Electronic version] Retrieved from http://web2.gov.mb.ca/laws/statutes/2004/c02404e.php on April 2, 2014.

Government of Manitoba (2006). *School partnerships*. [Electronic version] Retrieved from

www.edu.gov.mb.ca/k12/specedu/school_partnerships/pdf/ School_Partnerships_Complete.pdf on November 17, 2014.

Government of Manitoba (2013a). *Provincial assessment policy kindergarten to grade 12*. [Electronic version] retrieved from www.edu.gov.mb.ca/k12/assess/docs/policy_k12/ full_doc.pdf pm November 17, 2014.

Government of Manitoba (2013b). *The public schools act*. [Electronic version] retrieved from http://web2.gov.mb.ca/laws/statutes/ccsm/p250e.php.

Government of Manitoba (2013c). Grades 5 to 8 english language arts: A foundation for implementation. [Electronic version] Retrieved from www.edu.gov.mb.ca/k12/cur/ela/docs/ela-instruct-5to8.html on November 6, 2014

Government of Ontario (2006). *Safe schools policy and practice: An agenda for action*. (06-175) Queen's Printer for Ontario [Electronic version] Retrieved from www.edu.gov.on.ca/eng/ssareview/report0626.pdf on September 20, 2014

Harris, S. & Petrie, G. F. (2003). *Bullying: The bullies, the victims and the bystanders*. Lanham, Maryland :Scarecrow Press. Retrieved on August 6, 2014 from www.Questia.com.

Hawkins, D. L., Pepler, D. J., & Craig, W. (2001). Naturalistic observations of peer interventions in bullying. *Social Development*, *10*, 512-527.

Haye, K., Swearer, S., & Miller, C. (2009). Bullying: Understanding attitudes toward bullying and perceptions of school social climate. Retrieved on Sept. 10, 2014 www.education.com/reference/article/student-attitudes-towards-bullying.

Hernandez, T. J., & Seem, S. R. (2004). A safe school climate: A systematic approach and the school counselor [Electronic version]. *Professional School Counseling*, *7*(4), 256+ Retrieved on November 5, 2010 from www.Questia.com.

Holcomb, E. (2004). *Getting excited about data: Combining people, passion, and proof to maximize student achievement.* Thousand Oaks, CA: Corwin Press.

Hoover, J., Oliver, R., and Hazler, R. (1992). Bullying: Perceptions of adolescent victims in midwestern USA. *School Psychology International, 13*, 5-16.

Hymel, S., White A., & Ishiyama, I. (2003). *WVSD Safe School Survey*. Vancouver, BC: West Vancouver School District.

Inzlicht, M., & Kang, S. K. (2010). Stereotype threat spillover: How coping with threats to social identity affects aggression, eating, decision making and attention. *Journal of Personality and Social Psychology*, *99*, 467-481.

Juvonen, J., Nishina, A., & Graham, S. (2000). Peer harassment, psychological adjustment, and school functioning in early adolescence. *Journal of Educational Psychology*, *92*, 349-359.

Juvonen, J., Graham, S., & Schuser, M. A. (2003). Peer victimization and mental health during early adolescence. *Theory Into Practice*, *46*(2), 138-146.

Konishi, C, Hymel, S., Zumbo, B., & Li, Z. (2010). Do school bullying and student-teacher relationships matter for academic achievement? A multilevel analysis. *Canadian Journal of School Psychology*, *25*(1), 19--39.

Kowalski, R., & Limber, S. (2012). Psychological, physical and academic correlates of cyberbullying and traditional bullying. *Journal of Adolescent Health*, *53*, 512-520.

Kusch, L. (2013, May 11). PM promises victims' families end to tragedies: Harper hears stories of lost children. *Winnipeg Free Press.* Retrieved July 15, 2014, from www.winnipegfreepress.com/local/pm-promises-victims-families-end-to-tragedies-207035541.html.

Lacoe, J. R. (2012). To scared to learn?: The academic consequences of feeling unsafe at school.

Unpublished doctoral dissertation, New York University, New York, USA. Retrieved on Sept 9, 2014 from www.aefpweb.org/sites/default/files/webform/ Lacoe_School%20Safety_3.2012.pdf

Lee, J., & Shute, V. (2010). Personal and social-contextual factors in k-12 academic performance: An integrative perspective on student learning. *Educational Psychologist*, *45*(3), 185-202.

Lemstra, M., Rogers, M., Redgate, L., Garner, M., & Mororos, J. (2011). Prevelence, risk indicators and outcomes of bullying amongst on-reserve first nations youth. *Canadian Journal of Public Health*, *102*(6), 462-466.

Li, Q. (2007). New bottle but old wine: A research of cyberbullying in schools. *Computers in Human Behaviour*, *23*, 1777-1791.

Liepe-Levinson , K. & Levinson, M. H. (2005). A general semantics approach to school-age bullying. *ETC: A Review of General Semantics*, *62*(1), 4-17.

Love Our Children, USA (2014). Bullying prevention. Retrieved on September 20, 2014 from http://www.love ourchildrenusa.org

Luiselli, J. K., Putnam, R. F., Handler, M.W., & Feinberg, A. (2005). Whole-school positive behavioral support: Effects on student discipline problems and academic performance. *Educational Psychology*, *25*, 183–198.

Marachi, R., Astor, R. A., & Benbenishty, R. (2007). Effects of student participation and teacher support on victimization in Israeli schools: An examination of gender, culture and school type. *Journal of Adolescences*, *36*, 225-240.

Marzano, R. J., Marzano J. S., & Pickering, D. J. (2003). *Classroom management that works: Research-based strategies for every teacher.* Alexandria, Virginia: ASCD.

Mcevoy, A., & Welker, R. (2000) Antisocial behaviour, academic failure, and school climate: A

critical review. *Journal of Emotional and Behavioural Disorders*, *8*(3), 130-140.

McGrath, H., & Nobel, T. (2010). Supporting positive pupil relationships: Research to practice. *Educational and Child Psychology, 27*(1), 79-90.

McIntyre, M. (2013, November 19). Bereaved parents raise awareness of teens' plight: Cyber-bullying, child sexual exploitation. *Winnipeg Free Press.* Retrieved July 15, 2014, from www.winnipegfreepress.com/local/bereaved-parents-raise-awareness-of-teens-plight-23245921.html.

Mergler, M. S., Vargas, K. M., & Caldwell, C. (2014, Oct.). Alternative discipline can benefit learning. *Phi Delta Kappan*, *96* (2). Retrieved on October 19, 2014 from www.Questia.com.

Mitchell, M., Longhurst, J., & Jacob, D. (2008). It starts with us. *Reclaiming Children and Youth*, *17*(1), 14-22.

Mynard, H. & Joseph, S. (1997). Bully/victim problems and their association with Eysenck's personality dimensions in 8 to 13 year-olds. *British Journal of Educational Psychology, 67*(1), 51-54.

Nansel, T. R., Overpeck, M., Pilla, R. S., Ruan, W. J., Simons-Morton, B., & Scheidt, P. (2001). Bullying behaviours among US youth: Prevalence and association with psychological adjustment [Electronic version]. *Journal of the American Medical Association*, 285, 2094-2100.

National Education Association (2007). Importance of school climate. [Electronic version]. Retrieved on September 5, 2014 from www.nea.org/home/51562.htm.

Novick, F, Kress, J., & Elias (2002). *Building learning communities with character.* Alexandria, Virginia: ASCD.

O'Connell, P., Pepler, D., & Craig, W. (1999). Peer involvement in bullying: Insights and challenges for intervention. *Journal of Adolescence*, *22*(4), 437-452.

Olweus, D. (2003). A profile of bullying at school. *Educational Leadership*, *60*(6), 12-17.

Pellegrini, A. D., & Bartini, M. (2001). Dominance in early adolescent boys: Affiliative and aggressive dimensions and possible functions [Electronic version]. *Merrill-Palmer Quarterly*, *47*(1), 142.

Pellegrini, A. D. (2002). Bullying, victimization and sexual harassment during the transition to middle school. *Educational Psychologist*, *37*(3), 151-163.

Pepler, D., Craig, W., Connolly, J., Yuile, A., McMaster, L., & Jiang, D. (2006). A developmental perspective on bullying. *Aggressive Behaviour*, *32*, 376-384.

Pereira, B., Mendonça, D., Neto, C., Valente, L., & Smith, P. K. (2004). Bullying in Portuguese schools. *School Psychology International*, *25*, 241-254.

Peterson, J. S., & Ray, K. E. (2006). Bullying and the gifted: Victims, perpetrators, prevalence, and effects. *Gifted Child Quarterly*, *50*(2), 148-168.

Porter, L. (2007). *Student behaviour: Theory and practice for teachers (3rd ed.)*. Crows Nest, N. S. W.: Allen & Unwin.

PREVnet. (2014a). *Dangers of bullying: Bullying is not harmless*. Retrieved on September 15, 2014 from www.prevnet.ca/bullying/dangers.

PREVnet. (2014b). *Facts and solutions: Knowledge is power—focusing on evidence-based research*. Retrieved on September 15, 2014 from www.prevnet.ca/bullying/dangers.

PREVnet. (2014c). *Cyberbullying: The internet has no delete button*. Retrieved on September 15, 2014 from www.prevnet.ca/bullying/cyberbullying.

Price, J. H., Telljohann, S. K., Dake, J. A., Marsico, L., & Zyla, C. (2002). Urban elementary

school students' perceptions of fighting behaviour and concerns for personal safety. *Journal of School Health*, *72*(5), 184-191.

Rashauskas, J., & Stoltz, A (2007). Involvement in traditional and electronic bullying among adolescents. *Developmental Psychology*, *43*, 564-575.

Ratner H., Chiodo, L., Covington, C., Sokol, R., Ager, J., & Delaney-Black, V. (2006, April). *Merrill-Palmer Quarterly*, *52*(2), 264-287.

Research Advisors (2014). Sample size table. [Electronic version]. Retrieved on November 6, 2014 from www.research-advisors.com/tools/SampleSize.htm.

Ripski, M. B. & Gregory, A. (2009). Unfair, unsafe, and unwelcome: Do high school students' perceptions of unfairness, hostility and victimization in school predict engagement and achievement? *Journal of School Violence*, 8(4), 355-375.

Saskatchewan School Trustees Association (1994). *One incident is too many: Policy guidelines for safe schools*. (SSTA Research Report #94-05). Retrieved on October 15, 2014 from www.saskschoolboards.ca.

Saxon, R. (2005, Feb). Kindness curbs kids' name-calling. *Education Digest: Essential Readings Condensed for Quick Review*, 70(6), 8-13.

Schwartz, D., Farver, J., Chang, L., & Lee-Shin, Y. (2002). Victimization in South Korean children's peer groups. *Journal of Abnormal Child Psychology*, *30*(2), 113-125.

Schwartz, D., Gorman, A. H., Nakomoto, J., & Toblin, R. L. (2005). Victimizations in the peer groups and children's academic functioning. *Journal of Educational Psychology*, *97*, 425-435.

Seale, A. (2004). The 411 on bullying. [Electronic version]. Retrieved on November 4, 2014 from https://www.ncjrs.gov/pdffiles1/ojjdp/grants/226235.pdf.

Smith, J. D., Schneider, B. H., Smith, P. K., & Ananiadou, K. (2004). The effectiveness of whole-school anti-bullying programs: A synthesis of evaluation research. *School Psychology Review*, *33*, 547-560.

Smith, P. K., Morita, Y., Junger-Tas, J., Olweus, D., Catalano, R., & Slee, P. (Eds.) (1999). The nature of school bullying: A cross-notional perspective. London, England: Routledge.

Smokowski, P. R. & Kopasz, K. H. (2005). Bullying in school: An overview of types, effects, family characteristics, and intervention strategies. *Children & Schools, 27*(2), 101-110.

Spriggs, A. L., Iannotti, R. J., Nansel, T. R., & Haynie, D. L. (2007). Adolescent bullying involvement and perceived family, peer and school relations: Commonalities and differences across race/ethnicity. *Journal of Adolescent Health*, *41*(3), 283-293.

Statistics Canada (2011). *Community Profiles*. Retrieved from http://www12.statcan.ca/census-recensement/2011/ dp-pd/prof/details/ page.cfm?Lang=E on September 29, 2014.

Stop Bullying Canada (2014). *Myths and realities: What are the myths about bullying*. Retrieved from https://stopbullyingcanada.wordpress.com/myths on September 15, 2014.

Stoppler, M. C., & Shiel, W. C. (2014). *Puberty*. Retrieved from www.medicinenet.com/puberty/ article.htm on November 25, 2014.

Stys, Y. (2004). *Beyond the schoolyard: Examining electronic bullying among Canadian youth.* Unpublished master's thesis, Carleton University, Ottawa, Ontario, Canada. Retrieved from http://www.bullying.org/bullyingdev/client_files/text_documents/ Final%20M.A.%20Thesis.doc on November 19, 2014.

Swahn, M., & Bossarte, R. (2006). The associations between victimization, feeling unsafe, and

asthma episodes among US high-school students. *American Journal of Public Health*, *96*(5), 802-805.

Swaim, R. C., Henry, K. L., & Kelly, K. (2006). Predictors of aggressive behaviours among rural middle school youth. *Journal of Primary Prevention*, *27*(3), 229-243.

Swearer, S. M, Song S.Y., & Cary P.T. (2001). Psychosocial correlates in bullying and victimization: The relationship between, depression, anxiety and the bully/victim status. In Geffner R. A. & Loring, M. (Eds). Bullying behaviour: Current issues, research, and interventions (pp. 95-121). Haworth Maltreatment and Trauma Press/The Haworth Press, Inc., Binghamton, NY.

Tatum, D. (2009). *School climate, school safety, victimization, and student self-reported grades: A quantitative study*. Unpublished doctoral dissertation. Walden University, Minneapolis, MN.

Thompson, F., & Smith, P. K. (2012). Anti-bullying strategies in schools: What is done and what works. *British Journal of Educational Psychology*, Monograph Series II, 9, 154-173.

Tomas, L. (2014). How to calculate a statistically significant sample size. [Electronic version]. Retrieved on November 6, 2014 from www.ehow.com/m/how_696770_calculate-statistically-significant-sample-size.html

Townsend, L., Flisher, A. J., Chikobvu, P., Lombard, C., & King, G. (2008). The relationship between bullying behaviours and high school dropout in Cape Town, South Africa. *South African Journal of Psychology*, *38*(1), 21–32.

Varjas, K., Henrich, C., & Meyers, J., (2007). Urban middle schools student's perceptions of bullying, cyberbullying and school safety. *Journal of School Violence*, *8*(2), 159-176.

Vreeman, R. C., & Carroll, A. E. (2007) A systematic review of school-based interventions to

prevent bullying. *Archives of Pediatric Adolescent Medicine*, *161*(1), 78-88.

Wilbert, H. J. (2002, Spring). Do sweat the small stuff: Stemming school violence [Electronic version]. *American Secondary Education*, *30*(2), Retrieved on November 21, 2010 from www.Questia.com.

World Health Organization (2004). *Young people's health in context. HBSC international report from the 2001/2002 survey*. Copenhagen: WHO. Retrieved on February 16, 2012 from http://www.euro.who.int/data/assets/pdf_file/0008/110231/e82923.pdf .

World Health Organization (2010). *Health behaviour in school-aged Children. HBSC international report from the 2010 survey.* Copenhagen: WHO. Retrieved on May 7, 2014 from http://prevent.ca.demosite.thebitzinc.com/Bullying/BullyingStatistics/tabid/122/Default.aspx .

Footnotes

[1]TTFM is an online school survey system about bullying that provides a place where views of students, teachers, and parents can be heard. It provides information to administrators about their school and the division contexts that can be used for making strategic decisions for interventions.

[2]Canadian Public Health Association assessment toolkit for bullying, harassment and peer relations. The toolkit, which contains two versions of the safe school survey, information about school programs, and information for teachers and parents, is found at http://www.cpha.ca/uploads/progs/_/safeschools/assessment_toolkit_e.pdf.

[3]Questia is an online research library with research tools for books and articles. The site makes materials available to subscribers.

[4]PREVnet is a national Network of 114 researchers and 59 youth organizations which work together to stop violence caused by bullying. The site is an up-to-date source of information to enhance awareness about bullying, to present findings of recent research, to help schools assess bullying problems and to provide strategies to promote healthy relationships within schools.

[5]Some completed surveys that had too many “Don’t Know” responses were removed from the total completed surveys by the Health and Safety Committee prior to the researcher receiving the copies.

[6]*Bonferroni correction* is a statistical method to adjust the critical value for test significance based upon the number of comparisons.

[7]A score less than 55 would arise from a combination of responses that indicated a frequency of bullying with “Don’t know” responses. The samples had been pre-screened by the Health and Safety Committee for useable surveys. To be included in this study, the researcher set limit of 10% or 5 “Don’t know” responses per completed survey for Grades 7 to 12 students.

[8]A score less than 32 would arise from a combination of responses that indicated a frequency of bullying with “Don’t know” responses. The samples had been pre-screened by the Health and Safety Committee for useable surveys. To be included in this study, the researcher set limit of 10% or 3 “Don’t know” responses per completed survey for Grades 4 to 6 students.

[9]Pink Shirt Day is an Anti-bullying Day. It is a day where participants wear pink T-shirts to symbolize their stand against bullying. It originated in Canada and it is now recognized by more than 25 countries around the world.

[10] Restitution training by D. Gossen is a program based upon Perceptual Control Theory by W. T. Powers and Control Theory by W. Glasser. It is a process where students learn self-discipline. Restitution focuses on the student. The method asks students to self-assess their own behaviour and assess how it affects other people.

Appendices

Appendix A: School Division Health and Safety Committee Survey (Grade 4 to 12)

The following Questions are about your performance in Math and ELA Classes

1. During the past 4 weeks, has the actions or comments of other students made it hard for you to work or focus on your class work?

In Math:	Never	Sometimes	Often	Frequently	Daily
In ELA:	Never	Sometimes	Often	Frequently	Daily

2. During the past 4 weeks, have your actions or comments towards other students made it hard for you to work or focus on your class work?

In Math:	Never	Sometimes	Often	Frequently	Daily
In ELA:	Never	Sometimes	Often	Frequently	Daily

3. How do your marks compare to others in your class?

In Math:	a lot below	a little below	about the same	a little above	a lot above
In ELA:	a lot below	a little below	about the same	a little above	a lot above

4. Which program are you taking this year?

In Math:	Regular/Essential	Applied/Pre-calc	Applied	Pre-Calc
In ELA:	Regular Grade Level	Literary	Comprehensive	Transactional

5. Rate what you expect to receive for your performance in your classes against the scale below

Math		ELA	
Mark	Grade	Mark	Grade
80 to 100	A	80 to 100	A
70 to 79	B	7 to 79	B
60 to 69	C	60 to 69	C
50 to 59	D	50 to 59	D
Below 50	F	Below 50	F

6. Rate what you expect to receive as your overall performance in all your classes I your current grade.

Mark	Grade
80 to 100	A
70 to 79	B
60 to 69	C
50 to 59	D
Below 50	F

7. How do you rate the overall safety of the school?
   Rate your level of Safety

   Very Safe Safe So-So Unsafe Very Unsafe

   Rate the level of safety for all students of the school

   Very Safe Safe So-So Unsafe Very Unsafe

Appendix B: Questions about Perceptions of School Violence (Grade 7 to 12)

Selected Questions from CPHA Safe School Grade 7 to 12 Survey for Exposure to Bullying, Victimization and Observing Bullying (Seven Questions with 55 parts)

Q 15. Has four parts. It asks the participants to rate how frequently they have been physically bullied, verbally insulted, socially left out or electronically bullying by internet, phone or email.

Q 16. Has four parts. It asks the participants to rate how frequently they have taken part in physically bullying, verbally insulting, socially leaving out or electronically bullying by internet, phone or email other students.

Q 17. Has four parts. It asks the participants to rate how frequently they have observed others being physically bullied, verbally insulted, social left out or electronically bullied by internet, phone or email.

Q 20. Has nine parts. It asks the participants to rate how frequently they have had negative things said about their culture or race, called racist names, teased about or made fun of your culture or race, treated as inferior or made to feel ashamed due to race, blamed your race or culture for problems in society.

Q 22. Has nine parts. It asks the participants to rate how frequently they have said had negative things said about another's culture or race, called them racist names, teased them about or made fun of them because of their culture or race, treated them as inferior or made them to feel ashamed due to race, blamed their race or culture for problems in society.

Q 23. Has 11 parts. It asks participants to rate how frequently boys or girls they have been insulted about your gender, called gay or lesbian, had sexual rumours spread about you, made crude comments or gestures to or about you, made you feel uncomfortable by staring, standing too close or touching you in a sexual way or forces you to act in sexual ways you find objectionable.

Q 33. Has 14 parts. It asks participants to rate how frequently they had been left out or treated badly due to religion, skin color, country of origin, disability, gender, academic ability, body type, dress, or wealth.

Appendix C: Questions about Perceptions of School Violence (Grades 4 to 6)

Selected Questions from CPHA Safe School Grade 4 to 6 Survey for Exposure to Bullying, Victimization and Observing Bullying (Ten Questions with 32 parts)

Q 14 to 19. Has six parts. It asks the participants to rate how often they are bullied at school or on the way to or from school, how often they fully others at school or on the way to or from school, and how often they witness others bullied at school or on the way to or from school. I am bullied at school. (options: NO, no, some, yes, YES)

Q 20. Has four parts. It asks participants to rate how often they have been physically bullied, verbally insulted, socially left out or electronically bullied by internet, phone or email.

Q 23. Has four parts. It asks participants to rate how often they have taken part in physically bullying, verbally insulting, socially leaving out, or electronically bullying by internet, phone or email other students.

Q 24. Has four parts. It asks participants to rate how often they have observed others being physically bullied, verbally insulted, socially left out, or electronically bullied by internet, phone or email.

Q 26. Has 14 parts. It asks participants to rate how frequently they had been left out or treated badly due to religion, skin color, country of origin, disability, gender, academic ability, body type, dress, or wealth.

Appendix D: Questions about Perceptions of Personal Safety (Grades 7 to 12)

Selected Questions from CPHA Safe School Grade 7 to 12 Survey for Perceptions of Personal Safety (Six Questions with 11 parts)

Q 11 to 12. It asks participants to rate how they safe they feel at school and on the way to or from school.

Q 14. Has six parts. It asks students to rate if they fear that they will be physically bullied or sexually harassed, socially isolated or ridiculed or verbally abused by other students.

Q 18 and 27. Has two parts. It ask participants to rate if they have avoided school or certain classrooms out of fear of bullying or harassment.

Health and Safety Committee Survey

Selected Questions for the Grade7 to 12 survey for Perceptions of Personal Safety

Q 7. How do you rate the overall safety of the school? Rate your level of Safety

Appendix E: Questions about Perceptions of Personal Safety (Grades 4 to 6)

Selected Questions from CPHA Safe School Grade 4 to 6 Survey for Perceptions of Personal Safety (Four questions with 4parts)

Q 11 to 12. Has two parts. It asks participants to rate how they feel at school or on their way to or from school.

Q 18. Has one part. It ask participants to rate if they have avoided school out of fear of bullying or harassment.

Health and Safety Committee

Selected Questions from Grade 4 to 6 Survey for Perceptions of Personal Safety

Q 7. How do you rate the overall safety of the school? Rate your level of Safety

Appendix F: Informed Consent

UNIVERSITY OF MANITOBA | Faculty of Education

Research Project Title: The Relationship Between Student Perceptions of School Violence, School Safety And Marks In A Small, Rural Manitoba School Division.

Principal Investigator:

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

The purpose of this research is to see if there is a relationship between perceived school violence and safety and school marks.

The study will use the completed CPHA Safe School Survey and the local survey regarding mark information completed during May 2012. Only the responses from the Gr. 4 to 12 students will be used.

As your division is the only participant, the results of the analysis will have significance to your school division. You will see the level of exposure to school violence that students perceive as well as their perceived threat to personal safety. In addition, you will be informed of how students perceive their academic performance within the scope of the school violence and threat to personal safety.

There is only minimal risk to the school division as a participant and to the students who completed the surveys. All reference to the identity of students and the identity of the school division would be removed prior to the researcher receiving the surveys.

The surveys will be stored in a locked filing cabinet at the researcher's home for the duration of the project. Once the project is completed in March 2014, the surveys will be returned to the school division or shredded. The researcher will be the only person to have access to the completed surveys.

No remuneration for participation will be provided. However, a summary of the results will be forwarded to you, the Board of Trustees and the Principals upon completion of the research—

approximately March of 2014. A summary will also be made available for inclusion within the Division Community Report that is distributed to all stakeholders of the Division. Should the findings of the analysis be significant then the results may be published.

Your participation may be withdrawn from the research at any time without negative consequences.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and/or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.
The University of Manitoba may look at your research records to see that the research is being done in a safe and proper way.

This research has been approved by the Education/Nursing Research Ethics Board. If you have any concerns or complaints about this project you may contact any of the above named persons or the Human Ethics Coordinator (HEC) at 204 474-7122. A copy of this consent from has been given to you to keep for your records and reference.

Participant's Signature _____ Date: _____