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A STUDY OF THE RELATIONSHIP BETWEEN HIGH SCHOOL PRINCIPAL LEADERSHIP STYLE AND THE NUMBER OF BULLYING BEHAVIORS IN MONTANA PUBLIC HIGH SCHOOLS

By

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Dissertation

presented in partial fulfillment of the requirements for the degree of

Doctor of Education In Educational Leadership The University of Montana Missoula, MT

December 2013

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Abstract

James Edward Fuller, Ed.D., December, 2013

Educational Leadership

A Study of the Relationship Between High School Principal Leadership Style and the Number of Bullying Behaviors in Montana Public High Schools.

Committee Chair: Dr. Patty Kero

This quantitative study examines the relationship between the leadership style of 19 Montana high school principals and the number of incidents of serious bullying that occurred in their schools during the 2011-2012 school year. Bullying behavior and its many negative ramifications is a problem of paramount importance for educators today. This study shines new light on the topic by testing the effect of the principal's leadership behavior on one measurement of the bullying problem.

Data on principal leadership style, the independent variable, was gathered via the Multi-Factor Leadership Questionnaire (MLQ 360 Form 5X Short). This survey measured each leader's transformational, transactional, and laissez faire leadership styles. Data on bullying behavior, the dependent variable, was gathered from a database on disciplinary incidents maintained by the Montana Office of Public Instruction.

Descriptive statistics were discussed concerning the rate of bullying incidents in the 19 high schools as well as the leadership styles of the 19 principals. The latter were compared against national norms. The variables were tested for a correlational relationship in ten distinct hypotheses. A correlational analysis (Spearman), a linear regression, as well as four tests of a multiple ANOVA were used to determine whether a relationship existed between variables.

A statistically significant relationship was found for two of the ten hypotheses. The results showed no statistically significant effect between variables for the other seven hypotheses. The results of the analyses are discussed as well as conclusions regarding their meaning and significance. Recommendations are made for practicing leaders, and questions and recommendations are raised for continued future research in the field.

Dedication

This dissertation and the degree it completes are dedicated to my late father, Jim Fuller, and to my incredible wife, Jenni Frizzell Fuller. My father believed, like the educator John Dewey, that education was not preparation for life but life itself. He instilled that belief in me. Without him, I would not have dreamed big enough to pursue a doctorate, and though he did not live to see its completion, I feel his enormous gratification and pride.

After a five year leave of absence, it was my wife who inspired me to return and finish. She saw in me my best self and would accept nothing less. I can imagine no greater act of love and caring. Her own brilliance and work ethic are peerless and a constant model. Her unwavering support and confidence made this all possible. There is simply no way I would have accomplished this without you. You have my deepest and eternal gratitude and love!

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I have to begin by thanking my parents and their unfailing support of my educational career since my very first day of formal schooling. Theirs was a message, consistent and strong, that there was no better path to opportunity, happiness, and self-actualization than education and learning.

Thank you to Dr. Beverly Chin, who suggested I pursue an administrator's certificate as an endorsement to my MA in English Education. It was in those first Educational Leadership courses that I unearthed my true passion for leadership, research, and broad theoretical thinking. Len Foster, John Lundt, Dean Sorenson, Merle Ferrier, Bobbie Evans, Bill McCaw, and others introduced me to a level of learning, discussion, and scholarship I had not experienced.

Thank you to Dr. Bobbie Evans who recognized in me the potential and promise of a doctoral level scholar. She not only encouraged me to apply to the program but nominated me for the 2002-2003 Moser-McKinney Fellowship, which I was awarded. The generous support of that fellowship enabled me to begin the doctorate program.

In the spring of 2005, with my life changing too quickly to keep pace, I applied for a one year leave of absence from the doctoral program. One year quickly became five before my wise spouse inspired me to reapply and return to the program. Here, Dr. Bill McCaw deserves a very special thank you. He was the first person I contacted and never once made me feel anything but welcome back. He praised and encouraged my ability and rekindled the fire for the content that had dwindled with the passing years. He is a scholar, a gentleman, a good man, and exceedingly well-dressed! Dr. John Matt's clear and concise instruction launched the proposal that would become this dissertation. Soya Bjorlie's expert and patient assistance with data organization and analysis were invaluable. His is a bright future in mathematics. I share my deepest gratitude to Dr. Patty Kero, who took me on as a candidate and chaired this dissertation with patience and expertise and care. No matter how behind I felt or what obstacles I encountered, she was right there with quick and helpful feedback or simply to remind me, "of course you will

finish." It was with her final pushes that I actually began to see myself as "Dr. Fuller." She is also one of the nicest people I've had the good fortune to know.

Finally, I shout a great, big, huge *thank you* to my family—my wife, Jenni, son, Cameron, and daughter, Payton. You are without question my life's greatest gifts and treasures. You inspire me to be the very best person I can. Thank you for giving me the time to work on all of this. Thank you for being patient as I took wrong turns and landed in dead ends. Thank you for being there for the triumphs and victories as well. Most of all thank you for being the people to whom I get to come home, no matter what letters follow my name. I love you!

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Chapter 1: Introduction to the Study

The general public's discussion of the welfare and safety of children in light of the decline of morality and civility in the modern world often waxes nostalgic about the more carefree and safer days of yore. By contrast, cautionary tales are spun regarding the perils and pitfalls for youth growing up, attending school, and coming of age in our far more dangerous modern world. So fervent is this largely anecdotal opinion that it gave rise to the infamous discipline list, a list of top discipline problems faced by educators in the 1940s that included things like chewing gum in class and making noise. This list was then compared to a list of problems embattling educators today including rape, extortion, and murder to name a few. In spite of the list being a complete fabrication by Fort Worth, Texas, businessman, accused murderer, and eventual Christian evangelist, T. Cullen Davis, who wrote it in 1980 as an argument for how schools have declined, it has been widely cited as scientific fact and printed in publications as reputable as Harper's Magazine and Reader's Digest (Bleiberg, 1994). The list does, however, illuminate a prevailing view (and paranoia) about the state of schools and the behavior of youth today compared to that of the "good old days," a point of view that does contain at least one grain of truth—the safety (physical, mental, and emotional) of students in school is a serious concern, demanding the attention of those both in and out of the field of education.

Prominent and traumatic among the threats to student safety and well being is that of bullying in schools. In a 2005 study of the multiple types of victimization experienced by juveniles, bullying was the one type considered most likely to harm a child's mental and emotional health (Finkelhor, Ormrod, Turner, & Hamby, 2005).

Berger (2007) noted, in her comprehensive analysis of the research on bullying, that "time and time again, scientists discover that the very students who most need to learn from peers and friends are the ones whom bullies prevent from such learning" (p. 105). Regardless of the rose-colored lens through which one wants to regard the past, it is clear that school bullying, in its many forms and iterations, is a negative behavior with a history reaching back nearly two centuries to the early dawn of the industrial revolution and the advent of modern schooling. Evidence of this, for example, can be found in fictionalized accounts of life in Victorian era English boarding schools such as Thomas Hughes's 1905 work, *Tom Brown's Schooldays*, which dramatically describes brutal scenes of harassment and hazing.

There is a significant amount of research to support the serious health risks and the disruption of the learning process resulting from bullying behavior. This is true for both victim and perpetrator (Berger 2007; Hawker & Boulton 2000). Whether a student is missing instruction due to disciplinary action or simply unable to concentrate for fear of what might be said or done by one's peers, the negative ramifications of bullying are far reaching and directly damaging to the educational mission. Bullying is a violation of an individual's fundamental right to feel and to be safe in an educational setting.

There is a substantial amount of research exploring the efficacy of certain antibullying programs, bullying prevention curricula, and policies and laws intended to thwart bullying with tough consequences (Berger, 2007; Elliot, 1999). Bullying is as much a problem behavior that manifests in certain individuals and situations as it is a cultural and social phenomenon. Given what is known about the relationship between leadership and a healthy school culture, it is then plausible to go a step further and consider the problem of bullying in relationship to the sort of leadership steering the school. In other words, are certain school cultures more accepting or even encouraging of bullying behavior while others are more explicitly or even implicitly intolerant of it?

Less research exists that seeks to understand school bullying from the perspective of it as a phenomenon of a school's culture and, more specifically, the role of school leadership in its prevalence within that culture.

Statement of the Problem

Bullying is an age-old problem in schools of all levels. It is carried out verbally, physically, and emotionally. In general, bullying is characterized by a repeated pattern of behavior, an imbalance of power between the bully and the victim, and the victim's perception and feelings of victimization and fear (Rigby, 2002). A high incidence of bullying is a problem for schools in that it has a direct impact on individual students and a larger impact on the school climate. Berger (2007) wrote, "Children who see bullying, day after day, absorb harmful lessons: bystanders should not intervene; victims deserve their fate; power beats fairness; adults do not care about children" (p. 107). Alarmingly, though not immediately obvious for bullies, the negative ramifications affect both victim and perpetrator in serious and often similar ways. Bullying and victimization are predictors of aggression, anxiety, delinquent behavior, and low student achievement (Hanish & Guerra, 2002; Lopez & DuBois, 2005; Nishina & Juvonen, 2005). Effects on victims of bullying include depression, low self-esteem, anxiety, and suicidal ideations as well as numerous highly publicized suicides resulting from chronic bullying at school (Kaminski & Fang, 2009). A U.S. Secret Service analysis of school shootings discovered that 71% of the shooters were themselves victims of bullying at school (Vossekuil, Fein,

Reddy, Borum, & Modzeleski, 2002). Manifestations of these problems in the school context can be the perception of a negative and unsafe school climate, low academic achievement, absenteeism and truancy, discipline problems, and dropout (Berger, 2007).

Bullying is a unique educational problem in that it affects so many wide-ranging elements of the educational community. Research has shown that both bullying and victimization both correlate with and predict aggression, underachievement, juvenile delinquency, anxiety, and depression (Lopez & DuBois, 2005). Recent studies have focused on the relationship between peer victimization and suicide and found that bullying may increase suicidal ideation and even suicidal behavior among adolescents (Kaminski & Fang, 2009). From the emotional wellbeing of an individual student to the academic outcomes for a particular class within a particular content area, bullying is a cancerous presence. Therefore, the identification and implementation of the most effective anti-bullying measures are imperative. Furthermore, an understanding of the factors and predictors of both bullying and civility are imperative for both teachers and school leaders.

A great deal has been studied and written across the fields of psychology, psychiatry, child development, counseling, and education about the causes and negative impacts of bullying and victimization. There are a tremendous number of programs in existence designed to prevent and intervene in incidences of bullying in schools. In 1999, The Center for the Study and Prevention of Violence at the University of Colorado conducted an analysis of 450 different antibullying programs in North America alone. The study found the lack of unbiased empirical evaluation deplorable and recommended only the Olweus program as meeting evidentiary (versus anecdotally) based standards of

efficacy (Elliot, 1999). In short, there is a dearth of unbiased, statistical research studying the efficacy of specific interventions. Subsequently, there exists a similar void in the field of educational leadership's knowledge of the relationship between school leadership and the prevalence of bullying in a particular school.

Purpose of the Study

Bullying and harassment among students in schools is an educational concern receiving more attention in both scholarly research and in the popular media than ever before. The recent occurrence of suicides resulting from chronic and unrelenting bullying in addition to incidences of school violence stemming from bullying are pushing researchers and practicing educators not only to reduce and prevent bullying in school cultures but also to understand it from a root cause perspective. The ghastly psychological and educational costs of this behavior have shifted the issue from a problem once written off in terms of kids-will-be-kids to one of crisis proportions.

The pursuit to understand and prevent bullying raises questions about the relationship between bullying behavior and other factors within the school environment. Nearly every element of the school community such as student achievement, student-teacher ratios, teacher expertise and morale, supervision, discipline policies, as well as the leadership style (practiced by both teachers and administrators), has a potential impact on the prevalence of bullying in the school. The purpose of this study was to analyze the relationship between the prevalence of bullying in public Montana High Schools and the leadership style practiced by the high school principal. In other words, the study was used to examine the extent to which the leadership style of the high school principal relates to the variance in the prevalence of bullying within public high schools

in Montana. The study defined and described a comprehensive picture of the leadership style practiced by the high school principal and then examined the effect of leadership style on the prevalence of a specific behavioral phenomenon—bullying.

Research Question and Hypotheses

The topic and the purpose of behavioral or educational research are given shape and then more finely focused by the research questions and hypotheses posed by the researcher (Creswell, 2009). In this quantitative study, the research question functions as the primary investigative query that the research itself endeavors to answer. The hypotheses function as more specific and refined statements that postulate relationships between the variables being studied (Cozby, 2007). In a quantitative study, the investigator may pose one or more research questions, which are typically stated in a broad fashion to encompass the entire scope of the research. Nearly all components of a study, from the review of literature to the methodology employed, were either directly or indirectly informed by the research question(s). The hypotheses are statements that more pointedly drive the data collection and then collectively endeavor to answer the more central research question(s) (Cozby, 2007).

The prevalence of bullying among high school students varies across the world as well as across the United States. The leadership styles of high school principals also vary widely. This quantitative study illuminated the relationship between the leadership styles of high school principals in Montana public high schools and the prevalence of bullying in these Montana public high schools. For the purpose of this research the following question was posed:

Research Question. What is the relationship between the leadership styles of high school principals in Montana public high schools with an enrollment greater than 200 students and the number of bullying incidents in Montana public high schools with an enrollment greater than 200 students?

There are multiple means of measuring the prevalence of bullying in a high school, some more concrete than others. This study employed archival data as a measurement of bullying prevalence in Montana high schools. The Montana Office of Public Instruction maintains a longitudinal database of out-of-school as well as in-school suspensions issued by all Montana high schools for a variety of infractions, including a category referred to as *offenses against persons*. This category includes the offenses of *threat/intimidation, other sexual offense*, and *harassment, bullying, intimidation* (nonsexual). For the data representing the prevalence of bullying in a school, this study used the number of incidents of suspension from school in response to either the infraction of threat/intimidation or harassment, bullying, intimidation (nonsexual) reported by each school in the study for the 2011-2012 school year. In short, the bullying prevalence variable was comprised of data representing the yearly incident rate of bullying and/or bullying-related behaviors that resulted in the perpetrator being suspended from school for one or more school days (Glossary School Discipline, 2012).

There are also a large number of instruments designed to determine the leadership style practiced by a high school principal. This study used data on principal leadership style gathered via the administration of the Multifactor Leadership Questionnaire (MLQ 360 Form 5X). Avolio and Bass (2004) developed the original edition of the MLQ in 1990 (and the current third edition of the Multifactor Leadership Questionnaire in 2004)

to assess the degree to which leaders exhibited transformational, transactional and passive/avoidant a.k.a. laissez faire leadership styles and behaviors. The instrument also measures the degree to which others in the leader's organization are satisfied with their leader and their leader's effectiveness. The MLQ determines leadership style via leader self-report, rater-report, and a comprehensive picture comprised of an average of both self and rater reports. The MLQ measures a range of leadership types and styles, from passive leaders to those who give contingent rewards to followers to leaders who transform their followers into becoming leaders themselves. The MLQ assesses a full range of leadership behaviors and includes nine leadership factors. These factors exist within one of three distinct leadership styles—transformational, transactional, and laissez faire (Avolio & Bass, 2004).

In the MLQ, a transformational leadership style consists of the measurement of the following five factors: idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individualized consideration. A transactional leadership style consists of the measurement of two factors, contingent reward and active management-by-exception. Lastly, a laissez faire leadership style also consists of the measurement of two factors, passive and avoidant (i.e., laissez faire) behaviors and passive management-by-exception (Avolio & Bass, 2004). Each style of leadership assessed by the MLQ along with the subscales of each are further defined in the "definitions" section of chapter 1 of this study.

Hypotheses. While there exists a continually emerging body of research studying the relationship between school leadership and school culture, there is virtually no research specifically, quantitatively examining the relationship between a principal's

leadership style and the occurrence of bullying behavior in a school. Therefore, the specific relationship between a principal's leadership style and the prevalence of school bullying behaviors is unknown. The following nine hypothetical predictions, and the null hypotheses or a priori assumptions that follow each prediction, will sharpen and focus the investigation to answer the study's research question:

Hypothesis 1_a . There will be a relationship between the number of bullying incidents in a school and the school principal's self-rating in transformational leadership.

Hypothesis 1_0 . There will be no relationship between the number of bullying incidents in a school and the school principal's self-rating in transformational leadership.

Hypothesis 2_a . There will be a relationship between the number of bullying incidents in a school and the school principal's self-rating in transactional leadership.

Hypothesis 2_0 . There will be no relationship between the number of bullying incidents in a school and the school principal's self-rating in transactional leadership.

Hypothesis 3_a . There will be a relationship between the number of bullying incidents in a school and the school principal's self-rating in laissez faire leadership.

Hypothesis 3_0 . There will be no relationship between the number of bullying incidents in a school and the school principal's self-rating in laissez faire leadership.

Hypothesis 4_a . There will be a relationship between the number of bullying incidents in a school and the rater-rating of the school principal in transformational leadership.

Hypothesis 4_0 . There will be no relationship between the number of bullying incidents in a school and the rater-rating of the school principal in transformational leadership.

Hypothesis 5_a . There will be a relationship between the number of bullying incidents in a school and the rater-rating of the school principal in transactional leadership.

Hypothesis 5_0 . There will be no relationship between the number of bullying incidents in a school and the rater-rating of the school principal in transactional leadership.

Hypothesis 6_a . There will be a relationship between the number of bullying incidents in a school and the rater-rating of the school principal in laissez faire leadership.

Hypothesis 6_0 . There will be no relationship between the number of bullying incidents in a school and the-rater rating of the school principal in laissez faire leadership.

Hypothesis 7_a . There will be a relationship between the number of bullying incidents in a school and the average of the school principal's self-rating and rater-rating in transformational leadership.

Hypothesis 7_0 . There will be no relationship between the number of bullying incidents in a school and the average of the school principal's self-rating and the raterrating in transformational leadership.

Hypothesis 8_a . There will be a relationship between the number of bullying incidents in a school and the average of the school principal's self-rating and the raterrating in transactional leadership.

Hypothesis δ_0 . There will be no relationship between the number of bullying incidents in a school and the average of the school principal's self-rating and the rater-rating in transactional leadership.

Hypothesis 9_a . There will be a relationship between the number of bullying incidents in a school and the average of the school principal's self-rating and the raterating in laissez faire leadership.

Hypothesis 9_0 . There will be no relationship between the number of bullying incidents in a school and the average of the school principal's self-rating and the raterating in laissez faire leadership.

Hypothesis 10. In an effort to produce an even greater understanding of the ways in which the variables of leadership and bullying interact in a school, a tenth hypothesis was also tested in which the rate of bullying incidents was treated as the independent variable and leadership style the dependent variable. The first nine hypotheses predicted that high school principals' strength or weakness in a particular leadership style will have an effect on or an association with the rate of bullying incidents in their schools. In this tenth hypothesis, it was predicted that the rate of bullying incidents in a high school will have an effect on or association with the strength or weakness of principals' leadership in terms of the three styles measured by the MLQ. In order to determine whether the rate of bullying incidents in a school could predict the leadership style of the principal, the following hypothesis and null hypothesis were tested:

Hypothesis 10_a . There will be a relationship between the school principal's leadership ratings and the number of bullying incidents in a school.

Hypothesis 10_0 . There will be no relationship between the school principal's leadership ratings and the number of bullying incidents in a school.

Definition of Terms

The definition of important or frequently used terms in educational research is critical in illuminating for the reader the research-specific meaning of certain words and phrases used by the researcher. Cozby (2007) referred to the concept of construct validity as being essential in quantitative studies. The idea of construct validity is that the researcher provides a definition of terms and variables adequate enough so that the operational definition of terms reflects their theoretical meaning as well (Cozby, 2007). For the purpose of this study and for the purpose of insuring accuracy and alignment within the study, the following definitions of terms are provided.

Bully: The perpetrator of a bullying incident; for the purpose of this study, a bully is defined as a person with a strong need for power and (negative) dominance, who finds satisfaction causing injury and suffering to others, and who is often rewarded in some way for his or her behavior with either material or psychological rewards (Rigby, 2002). One of the simplest definitions of the term is "someone who repeatedly attacks another individual who does not fight back" (Berger, 2007).

Bullying: It is critical to guard against (as researchers on bullying have done) considering all aggression to be bullying. Bullying, however, is always aggressive, sometimes violent, and consistently defined as hurtful (Gendreau & Archer, 2005). "A person is bullied when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other persons, and he or she has difficulty defending himself or herself" (Olweus, 2001, p. 5-6). Olweus noted that this definition contains three critical elements that distinguish it from other types of negative behavior. For the purpose of this study bullying is defined by the following conditions; behavior that is physically,

verbally, or emotionally aggressive on the part of the perpetrator and unwanted on the part of the victim; a pattern of repetition over a period of time; a distinct imbalance of power between the perpetrator and the victim (Olweus, 1993).

Bullying incident (BI): For the purpose of this study a bullying incident was defined as an incident of threat/intimidation or harassment, bullying, intimidation (nonsexual) resulting in the perpetrator being suspended from school. These categories of threat/intimidation, other sexual offense, and harassment, bullying, intimidation (nonsexual) were developed by the Montana Office of Public Instruction in its school discipline report gathered yearly from every public Montana school (Glossary School Discipline, 2012).

Bully-victim: An individual who is both the victim of bullying and who bullies others (Haynie et al., 2001).

Bystander: A bystander of a bullying incident is defined as one who is present when the bullying behavior occurs. It is erroneous always to consider bystanders as neutral parties (Salmivalli, 2001). Some encourage bullies by doing things like laughing at the bully or gathering around a fight. Others defend victims, though this behavior decreases as bullies and victims enter their teen years, and there exists more pressure to reject victims (Rose, Swenson, & Waller, 2004). Most often, however, observers are bystanders rather than inciters or defenders (Berger, 2007).

Laissez faire leadership (LF): This style of leadership is defined by an avoidance of responsibilities and the failure to make decisions. Leaders practicing this style are often absent when needed or fail to follow up on requests. The measurement of this style is based on the practice of passive management-by-exception, in which leaders are

unaware of performance problems until brought to their attention (Avolio & Bass, 2004).

Transactional leadership (TS): This style of leadership is defined by the degree to which the leader rates on the following components. First, the idea of contingent reward concerns the extent to which leaders set goals, make rewards contingent on performance, obtain necessary resources, and provide rewards when performance goals have been met. Second, active management-by-exception happens when managers closely monitor follower performance, keep track of mistakes, and intervene when mistakes occur (Bass, 2008).

Transformational leadership (TL): For the purpose of this study, this style of leadership is defined by the degree to which the leader rates on the following factors. First, idealized attributes and idealized behaviors, also known as idealized influence, are defined as the degree to which the leader instills pride in others, displays power and confidence, makes personal sacrifice, champions new possibilities, considers the ethical or moral consequences of decisions, and discusses the importance of having a collective sense of vision and mission. Inspirational motivation is defined as the leader's ability to articulate a compelling vision of the future, set challenging standards, and state a clear position on controversial issues. Intellectual stimulation is defined as the leader's ability to empower and enable followers to understand the problems they face in the current situation and contrast them against the vision and mission for the future. Finally, individualized consideration is defines as the extent to which leaders treat followers as individuals and how much of a mentoring or coaching orientation leaders demonstrate in their engagement with followers (Bass & Bass, 1998).

Victim: The victim of a bullying incident is someone who repeatedly suffers

mistreatment, is defenseless, and experiences oppression and the feeling that the behavior is difficult to bear as well as the belief that the treatment is unjust (Berger, 2007; Salmivalli & Nieminen, 2002).

Delimitations

This study was delimited to the population for this study, which was the 49 public high schools in the state of Montana with an enrollment of 200 or more students. The sample for this study was the 19 high schools in the state of Montana with an enrollment of 200 or more students whose principals and raters participated in the MLQ survey.

This study was also delimited to the rate of bullying incidents in the 19 high schools—the outcome or dependent variable for the study—which was represented by archival data collected by the Montana Office of Public Instruction (OPI) through its School Discipline Data Collection procedure. Individual Montana school discipline data are reported yearly to OPI by all Montana public schools and must include all incidents that result in an out-of-school suspension or expulsion of a student, regardless of length of time, as well as those that result in an in-school suspension of a student with disabilities. These incidents are coded by type, and the data for this variable will be the number of suspensions in response to either a "threat/intimidation" incident or a "harassment, bullying, intimidation (nonsexual)" incident as reported by each school in the study. The numerical data represented the precise number of disciplinary actions (suspensions) administered in response to bullying behaviors as reported by individual school sites. Therefore, for the purposes of this study, said disciplinary actions were assumed to be an accurate measurement and representation of the prevalence of bullying behavior in each school in the study.

Principal leadership style—the predictor or independent variable for the study—was represented by original data collected by the researcher via the administration of the MLQ. The MLQ measures leadership behavior according to the three leader types and styles, ranging from low performing, passive leaders to those who lead by giving followers contingent performance rewards and sanctions to leaders who transform their followers into becoming leaders themselves. The MLQ offers a full range assessment across nine leadership factors (Avolio & Bass, 2004).

Limitations

Many researchers and practitioners seeking accurate data on the prevalence of bullying in a school or to pinpoint the specific number of bullying incidents that occur in a school on a yearly basis are limited first by the taboo nature of bullying itself. Students and adults (particularly those who are stakeholders in the success of the organization) are reticent to speak openly about any negative behavior and even less so about something as destructive as bullying. Furthermore, of the variety of detrimental school behaviors, bullying is notoriously underreported and/or goes unnoticed. The underreporting is largely driven by two factors. One, on par with a bully in the field of unwanted adolescent monikers is that of a "narc" or a "tattletale." Along with shame and humiliation, victims of bullying often harbor the fear that reporting the behavior to an authority will only make matters worse. This belief, combined with common misconception that bullying is normal rite-of-passage experience, skews the utility of the data on the number of reported and disciplined incidents of bullying. It is safe to assume that of all the reported bullying incidents there is an equal or greater number that occur unreported.

The second factor limiting the completeness of the data on bullying is that often bullying is carried out implicitly or in secret and hidden ways. Because of this, the broader school population may have an inaccurate sense of the prevalence of bullying within their school. In short, the clandestine nature of the behavior leads to more underreporting of incidents. Cyber-bullying has served to pour copious amounts of gasoline onto this fire. Bullying carried out via various means of virtual and electronic communication provides the perfect veil behind which the bully can remain concealed. This clandestine brand of bullying makes the identification of the participants and certainly the means of stopping it all the more elusive. Often this sort of bullying is not considered to be a school problem because it occurs beyond the hallways and classrooms and playgrounds. However, when the bullying occurs between schoolmates, regardless of where it takes place, the behavior certainly has an impact on the educational process much in the same way more traditional styles of bullying do.

Further limiting the study is the fact that it attempts to examine the relationship between bullying and one particular influential factor in the school, the principal's leadership style. Therefore, the results of this study should not be construed to represent the relationship between the occurrence of bullying and other potentially influential variables such as specific prevention programs, students' socioeconomic demographics, or a school's particular discipline policies or a state's antibullying laws. Bullying is a multifaceted and complex problem in schools affecting many aspects of the academic and social experience. Clearly, its mitigation will require a similarly comprehensive response. The examination of the relationship between a certain student behavior and the leadership style in a school may shed light on a complicated problem, but should not be construed as

a one-off solution or even a singularly complete analysis of the problem. In short, the results may be generalizable only insofar as what they conclude about bullying and school leadership. Generalizing the data and/or the results to speak to bullying issues other than those outlined in the study would be to ignore these explicitly stated limitations.

Significance

A great deal of existing research examines the causes and effects of bullying as well the success of individual, off-the-shelf antibullying programs. The significance of this study resides primarily in the fact that it examines a problem in education from a novel perspective: the relationship between bullying in a school and leadership style in a school. By examining this relationship, the study and its results shed new light on the age-old problem of school bullying, one that has proven enormously difficult to eradicate in a real and sustainable manner. By posing a question about the relationship or association between the rate (either low or high) of bullying behavior in a school and the leadership style practiced in the organization, this study was used to facilitate new understandings about the impact leadership may have on the rate of bullying incidents in schools. By providing information and guidance for practicing high school principals, answering significant questions about the problem of bullying in schools, illuminating gaps in current understandings, and raising important questions for future research, this study establishes itself as a significant contribution to the body of knowledge in the field of educational leadership and school bullying research.

Summary

In summary, this study was used to examine the problem of bullying in individual schools and the relationship between the problem and the leadership style evident in each school. Using specific types of data on bullying and leadership, the study was used to quantify the relationship between the two. The end goal was to determine whether certain leadership styles are positively or negatively associated with high and/or low levels of bullying within a school. By shedding new light on the field of educational leadership through the lens of an important educational issue like bullying, the conclusions drawn at the end of the study may add to what is known about effective school leadership and what it takes to develop and sustain a school climate that is positive, healthy, and lacking in harmful and destructive social behaviors such as bullying. In so doing, the knowledge gleaned may also contribute to the achievement of higher order educational goals such as student achievement, improved student attendance, and a dramatic reduction in harmful, unhealthy student behaviors.

Chapter 2: Review of the Literature

Introduction

This research was used to examine the question of leadership effect through a particular lens by exploring the relationship between the leadership style of Montana high school principals and the occurrence of bullying behavior in Montana high schools. In order to understand and to ground the question in existing theoretical contexts, a literature review traversing both the fields of research on bullying behavior and educational leadership is essential. In addition to the selection of texts and topics covered in the literature review, the approach of the researcher in reviewing the extant literature is also important. Thus, the review of literature in a doctoral dissertation must do more than simply summarize what has been written on the topic and regurgitate it in Chapter Two of the dissertation. This exercise seems more appropriate to the middle school language arts class in which one learned the invaluable *plot summary* device as a means of demonstrating reading comprehension. For guidance, the researcher turns to the 2005 work of Boote and Beile (2005), who stated that the scholar's ability "to analyze and synthesize the research in a field of specialization, should be the focal, integrative activity of pre-dissertation doctoral education" (p. 3).

Boote and Beile laid out five standards and criteria for analysis in a literature review. "Coverage" refers to how well the researcher justifies the inclusion of particular pieces into the review. The second standard, *synthesis*, reflects the quality of the summary, analysis, and synthesis of a selected piece of literature. *Methodology* refers to the researcher's ability to encapsulate the research method employed in the literature of the field of study. The criterion called *significance* regards the researcher's ability to

articulate the significance (i.e., the importance; strengths and shortcoming alike) of the research that has been done in the field. Lastly, Boote and Beile noted the importance of "rhetoric" that simply refers to how well and clearly and correctly the researcher has written the dissertation's review of existing literature (Boote & Beile, 2005). This literature review will apply and reflect these five standards in the selection, review, and articulation of the existing literature in the fields of bullying and leadership.

The literature regarding bullying behavior, in particular bullying behavior occurring in the social context that is "school," comes largely from the fields of education, school counseling and psychology. It investigates the topic from multiple angles, ranging from the environmental and individual predictors of bullying behavior to the consequences bullying behavior has on multiple human characteristics, from happiness to cognition (Berger, 2007). Additionally, there have been many studies, both anecdotal and empirical, which examine the efficacy of particular antibullying and bullying prevention programs (Elliot, 1999). There is also an extensive body of research and literature covering the broad topics of organizational and educational leadership. Of particular importance and relevance to this study are the research and literature concerning the effect of educational leadership on school culture, safety and civility, as well as specific student behavior outcomes; in other words, research that endeavors to answer questions about the strength or weakness of the relationship between school leadership style and various educational goals, including those of both an academic and social basis. It is also of critical importance to discern between the literature on leadership (both theory and practice) in education and that on leadership in nonschool contexts, as well as to understand the ways in which each has affected the other.

Bullying

The work of the Swedish scholar, Olweus, a seminal researcher in the field of bullying behavior in schools, as well as in the development of bullying prevention programming, provides a composite picture of bullying among youth and in schools, in particular in an international context. He provides a solid definition of bullying, which has come to serve as a foundational definition in the realm of much social science and behavioral research on the topic. His definition stresses the distinction between bullying and other aggressive behavior or negative actions in that bullying is not only repetitious by nature but also is always characterized by an asymmetrical power relationship between bully and victim. He noted that bullying is often "proactive aggression" or, in lay terms, negative actions which occur without apparent provocation or threat (Olweus, 2003).

Olweus' work has painted a troubling picture of the bullying problem by noting the sharp increase in bullying behavior in schools between the years 1983 and 2001 (as surveyed by Olweus and others in various countries), in both the approximate percentage of students victimized by bullying as well as the equally dramatic increase in the percentage of overall students involved in some way in bullying problems. While this data on the prevalence of bullying behavior may not be comparable across national and cultural boundaries, this increase is of particular relevance to this research in that it establishes the fact that bullying is an increasingly significant problem affecting schools in the modern era (Olweus, 2003).

Of additionally important relevance to this research study, Olweus' work articulated the idea that the occurrence and prevalence of bullying in schools are affected

by more than either the bully's or the victim's individual personality characteristics. He emphasizes the fact that critical to understanding the problem of bullying is the realization that environmental factors,

"such as the attitudes, behavior, and routines of relevant adults—in particular, teachers and administrators—play a crucial role in determining the extent to which bullying problems will manifest themselves in a larger unit, such as a classroom or school" (Olweus, 2003, p. 14).

He stressed that in order to grasp the primary causes of bully and victim problems, research must analyze them through at least two different lenses—the individual and the environmental. By examining the relationship between the prevalence of bullying behavior in schools and the school principal's leadership style (an environmental factor), this research study analyzed the problem of bullying in precisely the manner suggested by Olweus, one of the field's seminal researchers and practitioners.

While the work of Olweus over many years has provided a sound definition of bullying behavior, made a compelling case for it as a major problem behavior facing students in schools, dispelled commonly held myths, and described a framework for analysis of the bullying problem, it is of note to recognize that much of his recent work stumbles as an unbiased look at bullying in schools in that much of it is lately predicated upon his own for-profit, antibullying program. Olweus' work often extols the need for research-based interventions on bullying by citing Elliott's (1999) analysis of 500 intervention programs, only 11 of which met Elliott's criteria for effectiveness, with only four of the 11 being based in schools, and with only the Olweus program being recommended as empirically sound by Elliot (1999). Nonetheless, Dan Olweus remains

an important and foundational researcher and author in the field of bullying behavior and its impact on individuals in the school setting. His body of work provides invaluable and relevant information that girds this research study.

An extensive and interesting perspective on the bullying problem comes from the National Educational Association's (NEA) 2011 "Nationwide Study of Bullying." The study began with a strong case for tackling head-on the problem of bullying behavior in school by citing the very troubling fact that bullying affects almost 30% of school age children on a monthly basis (Nansel et al., 2001). Again, the literature established the fact that bullying is one of the most prevalent forms of aggressive victimization experienced by school-aged youth today (Nansel et al., 2001). These students are at increased risk for academic, interpersonal, and physical and mental health problems due to their exposure to or involvement in bullying (O'Brennan, Bradshaw, & Sawyer, 2009). Predicated by the conclusion that bullying has negative impacts both on students and on the school environment, the NEA study drew upon the perspective of school staff, both teaching and support staff, to illuminate areas of strength as well as areas of need related to bullying behavior in schools (Bradshaw, Gulemetova, O'Brennan, & Waasdorp, 2011).

Because the NEA study examined bullying behavior through the lens of school staff, it sheds light on the problem in certain contexts that pertain directly to the variable of school leadership. Specifically, in addition to examining staff's perception of their schools' "bullying problem" in all its modern iterations, this particular study also looked at the relationship between the participants' perception of school climate, their feelings of connectedness, and the presence of bullying intervention and prevention in their schools. It also examined the participants' knowledge, training, and involvement in specific

policies and programs meant to prevent bullying behavior. School climate, staff connectedness, professional development, and participation in bullying prevention programs are all factors in a school directly affected by the principal's leadership. From these angles, this prior research further established a basis for studying the relationship between the prevalence of bullying behavior and the leadership style practiced by the school principal.

While there is a great deal of literature on school climate, and the lion's share of bullying literature examined the problem for the viewpoint of students, there is less coverage of these issues from the staff perspective and in terms of their relationship to bullying in school (Bradshaw, Sawyer, & O'Brennan, 2007; Goldstein, Young, & Boyd, 2008; Juvonen, Nishina, & Graham, 2006). Highlighting the call for sound leadership in regards to bullying prevention is an oft-present rift between staff and student perceptions of the problem of bullying in their schools. Available research points to the fact students typically report a higher prevalence of bullying in school than do staff members and, importantly, often report that adults do not respond sufficiently when told of the occurrence of bullying (Bradshaw et al., 2007). So, while there is a growing interest in questions about school climate and staff connectedness, less work has been done to investigate how these factors relate to staff's involvement in reducing or eradicating bullying (Bradshaw, Gulemetova, O'Brennan, & Waasdorp, 2011).

The school staff perspective on the problem of bullying is relevant within an examination of the relationship between school bullying and leadership because school staff typically follow the course set by the principal when it comes to issues of concern in the organization. Forty-three percent of teaching and support staff across the country

reported that bullying is a serious problem in their school. Sixty-two percent reported witnessing two or more incidents of bullying on a monthly basis, while another 41% reported witnessing bullying on a weekly basis. Additionally, in the same nationwide study of staff at all grade levels, roughly half of the participants stated students often reported bullying to them (Bradshaw et al., 2011). Based on these findings, it is clear that school staff perceive bullying behavior to be a major problem in their school. Strengthening the call for effective leadership in terms of bullying is the fact that nearly all participants report the belief that it is "their job" to intervene when either witnessing or receiving a report of bullying behavior (Bradshaw et al., 2011).

A stark statistic highlighting a gap between bullying prevention programs and staff participation therein is the fact that approximately 60% of school staff reported that their school has some sort of formal bullying prevention program, but only 42% reported they are involved in the program. Another discrepancy appears to exist between policy and professional training. The vast majority of teaching and support staff reported that their school or school district indeed has an antibullying policy; however, only half of the participants reported having received adequate training in the policy's implementation. The gap between the mere existence of policies and programs to prevent bullying and staff knowledge of and involvement in them seems to be largest in urban schools and in high schools, both of which tend to be larger institutions. This disconnection calls for such schools to take additional steps to increase the effectiveness of these efforts (Bradshaw et al., 2011). Again, the bullying literature has established the need for more research concerning the most effective style of leadership in relation to the increased or decreased prevalence of bullying behavior.

The link between school climate and positive staff outcomes has also been established by prior research (Pas, Bradshaw, Hershfeldt, & Leaf, 2010). Contrasting this with the research covering school climate and school staffs' efforts to combat bully behavior, Bradshaw et al. (2011) noted that "there has been limited research examining bullying-related factors in relation to staff reports of school connectedness" (p. 5). Their research examined both differences in staff perceptions of connectedness as well as the relationship between these perceptions and teachers' willingness and comfort to intervene with all different forms of bullying behavior (Bradshaw et al., 2011). In other words, their work examined teacher connectedness and school climate—both factors linked to school leadership—as predictors for teachers' efforts to reduce bullying.

Teachers and support staff generally reported high levels of connectedness with their school community. However, these feeling vary from level to level, with high school and urban school staff reporting lower levels of connection. Again, Bradshaw et al. (2011) stated in the NEA study,

An important predictor of staff members' willingness to intervene in bullying situations was their perception of connectedness to the school. Specifically, school staff members' relationship with their colleagues and school administrators, their perceptions of safety, and their overall sense of belonging within the school community were associated with a greater likelihood of intervening in bullying situations. (p. 15)

This again raises the question of the relationship between leadership style and bullying behavior, transformational leadership in particular. Transformational leaders exercise idealized influence with followers and the organization's culture, meaning they instill

pride in others, display power and confidence, make personal sacrifice, champion new possibilities, consider the ethical or moral consequences of decisions, and discuss the importance of having a collective sense of vision and mission (Bass, 1998). Therefore, the NEA report's findings lend credence to the hypothesis stated in Chapter One of this study regarding a transformational style of principal leadership potentially predicting a lower prevalence of bullying behavior. In other words, if the effect of transformational school leadership is an improved climate and more effective staff performance—factors known to predict increased staff intervention on bullying incidents—then transformational leadership may indeed correlate with lower rates of bullying incidents in the schools sampled. The findings of the NEA further strengthen this hypothesis:

Staff members' perception that other staff in the school were likely to intervene in bullying incidents was associated with a greater likelihood that they would intervene as well. These findings support the use of school-wide climate enhancing programs that promote close relationships across administrators, teaching staff, parents, and students. Creating a supportive environment within a school can model positive social interactions for students, which may in turn reduce the likelihood of bullying. (Bradshaw et al., 2011, p. 15)

Across the board, whether feeling comfortable acting on one's own or being emboldened by collegiality with others, a positive school climate and feelings of connectedness with one's school community are positively associated with bullying prevention and intervention.

The NEA study extended previous research on the important connection between staff perception of the school climate and the fidelity of program implementation, all of which is at the very least indirectly correlated with leadership efficacy (Bevans, Bradshaw, Miech, & Leaf, 2007; Hoy & Woolfolk, 1993; Pas et al., 2010). School leaders who encourage collaboration among staff when it comes to decision-making affecting the entire school will likely be more effective in implementing bullying intervention and prevention efforts. Specifically, research has shown staff members' connectedness to each other influences the implementation of antibullying programs (Kallestad & Olweus, 2003), and when staff feel supported by colleagues and administrators, they perceive school climate in a positive way and are consequently more likely to be involved in the reduction of bullying behavior (Gregory, Henry, Schoeny, & Metropolitan Area Study Research Group, 2007).

There is also a strong link between staff members' perceptions of their ability to intervene effectively in an incident of bullying and their willingness to do so (Bradshaw et al., 2011, p. 15). This suggests leadership should focus on staff's perceptions of both connectedness and efficacy in terms of developing bullying reduction efforts. This finding falls in line with other research correlating teacher efficacy to their belief in their ability to be effective in the school setting, about effective teaching practices, and about student achievement (Skaalvik & Skaalvik, 2007). A recent study of the antibullying program, School-Wide Positive Behavior Supports, found that consistent implementation of the program resulted in huge improvements in feelings of connectedness and morale among staff (Bradshaw et al., 2009). The link between leadership, school climate, and teacher efficacy is clear in the literature. Prior research establishes a further connection between these factors and the prevalence of bullying. This research study endeavors to

take an even closer look at the pathway between principal leadership style and bullying and to determine whether or not a direct or indirect correlation exists between the two.

Berger, in her 2007 study entitled, "Update on Bullying at School: Science Forgotten," provided an extensive review of the past findings on school bullying behavior. Her work examined the existing definition of terms, looks at uncommonly studied effects such as genes and parents, and ultimately calls for a more scientific approach to the research in the field. Berger looked at the publication record across a variety of disciplines and settings (various countries and age groups). This is an enormously helpful aspect of her writing as it provides a composite of what has been done and more importantly what questions researchers have asked. While there have been a number of studies focusing on prevention, Berger found a dearth of work on the issue of causality, and no studies examining the school principal's leadership as a correlational or causal factor in the high or low prevalence of bullying behaviors in schools.

Berger provided thorough coverage of the research on the prevalence of bullying. Across many countries, many researchers have determined that bullying is a universal problem affecting schools at a variety of rates. In spite of this fact, it is impossible to come up with a sort of universal, average rate of bullying for a particular place or age group. If nothing else, while bullying appears to exits to varying degrees in many places, a subjective gathering of either original or archival data is needed for the validity of a particular study.

The need for sound, subjective, unbiased data on bullying prevalence highlights another concern noted by Berger. This is the fact that "most studies (two-thirds in 2005) rely on anonymous self-reports to identify bullies and victims" (Berger, p. 101, 2007).

There are myriad of reasons this method of data collection is a concern, some of which have been noted in the limitations of this study. There are risks of self and student reported data to both over and under-represent the prevalence of bullying in a school. There is also the possibility that a bully may not even recognize a particular behavior to be bullying, adding to the under-reporting problem. Berger concludes that the best method of gathering data on bullying is to employ multiple measures, including student and adult reports on the problem as well as data from official records of incident occurrence maintained by the school, district, or state educational organization.

Berger's work provides an extensive review of the consequences of bullying, which is important as it further establishes the fact that bullying is indeed a problem in schools. There is an unquestionable difference between the consequences of bullying as established through scientific research and those perceived through a "popular" understanding of bullying. The consequences of bullying behavior in schools have an impact on victims, bullies, bystanders, and the wider peer group. In general, the persistence of bullying in the school environment creates a distance from the learning process for those involved. This distance may manifest in low student achievement, high absenteeism, depression, and a general dislike of school. In the end, Berger noted that only "longitudinal, scientific data will reveal how widespread, inevitable, and enduring that harm is" (Berger, 2007, p. 107).

Berger, like Olweus, discussed the prevention of bullying in schools and noted there is a lack of scientifically based studies investigating particular approaches to stopping bullying. In fact, Berger cites Ladd (2005) who writes, "a plethora of programs to prevent or reduce bully-victim problems have been marketed...few...have been

empirically evaluated" (Ladd, 2005, p. 284). The take-away is the fact that the lion's share of the research on school bullying behavior as well as bullying prevention has focused on providing single case-study analyses of the problem. Berger's work attempts to identify the causes and the consequences of bullying behavior and to evaluate the effectiveness of specific bullying prevention programs, school policies, or state laws. Such work is limited by its subjective nature and site-based focus. These limits create a need for research that looks outside traditional contexts and regards the problem through a new lens.

Berger's work provided an extensive analysis of information and research about the bullying problem in schools. She examined the problem through the lens of a researcher in terms of both what has been done as well as what needs to be done and how. Berger relied on fact and distinguished between popular opinion and behavior science responses to the bullying problem. Also important is the conclusion that bullying is a social phenomenon that affects the educational system. By understanding bullying in this light, a researcher can draw from the fields of psychology, sociology, and leadership as a basis in approaching the issue.

The consequences of victimization via bullying behavior reach beyond student achievement and well-being in school. The work of psychological research continues to bear out this reality. In a study conducted on children ages 9-13 in The Netherlands, the researchers investigated the relationship between indirect and direct bullying and three specific indicators of psychosocial health—depression, suicidal ideation, and delinquency. Berger's study was enlightening for this research in that it further

illuminated with empirical evidence that bullying is indeed a problem for adolescents both in and out of the school setting (van der Wal, de Wit & Hirasing, 2003).

The study concluded suicidal ideation and depression are more common for both boys and girls who are victims of direct bullying. For boys, however, the association did not remain significant under multivariate analysis while for girls it did. In fact, for female students, 42.6% of those who experienced direct bullying reported depression while only 6.4% of those who were never bullied reported depression. With indirect bullying, the association with suicidal ideation and depression remained significant for both genders and persisted for both under multivariate analysis. Also of note, vast differences for these risk factors occur between students who report being victims of indirect bullying and those who do not. The conclusion being that being victimized by bullying behavior indeed is a predictor of these psychosocial risk factors.

Interestingly, the Danish study concluded that being a bully, in other words bullying others, puts one at even greater risk for the three factors than does being a victim. Delinquent behavior, depression, and suicidal ideation remained significant for both genders, for both types of bully behavior, and under multivariate analysis as well. Additionally, the percentage of students who reported engaging in bullying behavior and also report the presence of these psychosocial risk factors is far greater (in excess of 30%) than those who do not report engaging in bullying behavior, be it direct or indirect (van der Wal, de Wit & Hirasing, 2003).

These findings support the idea posited by this dissertation that bullying, for both victim and bully, is a dangerous problem for young people and for the schools in which they are educated. Interestingly, contrary to popular belief, indirect (social isolation)

bullying appears to be far more harmful than direct (physical or verbal) bullying. It seems to cause the higher degree of suffering (especially for girls), which is concerning as it is far more likely to occur in secret and therefore go unnoticed by adults.

Of particular concern are the results regarding the association between the offenders of bullying and other forms of delinquent behavior. There have been other studies that also pointed to the fact that delinquent behavior is more common among bullies (Olweus, 1993). Students who reported participating in bullying others are the most at risk for poor psychosocial health. It is this group that is associated with all three risk factors. It is plausible to assume the depressive symptoms and suicidal ideations reported by those who bully others are the result of being bullied themselves. This is suggestive of the "bully-victim" group noted by other researchers in the field (Berger, 2007; Olweus, 1993; Rigby, 2002). This group appears highly at risk for both poor psychosocial health and a lack of school connectedness and achievement.

The information contained in the Danish study, while relevant to this research in further establishing bullying as a problem behavior in society and in schools, contains limitations to it as well. The study is bound by place and culture and therefore not broadly generalizable to Montana or perhaps even to the United States. Also limiting the study is the age of the participants. Students age 9-13 are late primary to middle school aged by Montana standards. It is not known whether bullying among adolescents is a manifestation of a more generally aggressive attitude, which shows the trend toward considerable stabilization over the years (Farrington, 1993). Bullying is a social behavior in that it occurs between at least two people and therefore depends on a specific social context. The context for the study in the Netherlands was schools that were bound by

place, culture, and the age of their students. Like any social context as well as its members, schools are influenced by societal norms, attitudes, and demographics. These are unique and do not always translate from one setting to the next. Therefore the results, while valuable and informative, are limited in their breadth and depth relative to this particular dissertation's research.

In framing this research, which essentially seeks to examine the correlation between leadership (an environmental predictor) and bullying behavior in school, it is essential to seek other analyses of the predictors of bullying behavior. Cook et al. (2010) conducted a rather complete analysis of 153 studies on bullying. They also identified a number of both common and unique predictors for three "bully status" groups, which were identified by the analysis of the various studies—bullies, victims, and bully-victims. This work also furthers the distinction made by the work of Olweus (2003) in separating predictors of bullying that are unique to the individual from those that are unique to the context in which the bullying occurs.

Initially, the Cook study went into some detail to establish the fact that bullying is indeed a problem. The authors point to their conclusion that more study of the predictors of bullying is needed and state,

Given the limited efficacy of current bullying intervention programs, closer attention to the multiple predictors of bullying, both individual and contextual, is critical. Such predictors can provide a basis for designing interventions to prevent or reduce bullying among children and adolescents. (Cook et al., 2010, p. 66)

The study divided bullying predictors into two groups, individual and contextual.

The individual predictors were comprised of eight represented characteristics of

individuals while the contextual predictors were comprised of five contextual or environmental factors. Central to this dissertation are the five contextual predictors of bullying, which are "family/home environment, school climate, community factors, peer status, and peer influence" (Cook et al., 2010). Among them, most relevant to this work is school climate. This is the predictor of bullying most closely related to principal leadership style, in that leadership and organizational climate are often linked. The definition of school climate for this particular study is as follows: "School climate was defined as the degree of respect and fair treatment of students by teachers and school administrators as well as the child's sense of belonging to school" (Cook et al., 2010, p. 67).

Another important element of the meta-analytic investigation was the evaluation of how certain "moderators" or controls account for differences in the results of the study. The first moderator was the age of the participants. The authors noted several studies that point to the fact that both bullying prevalence rates and the predictors of bullying can vary widely across different age groups (Cook et al., 2010). The second control is the means of measuring prevalence rates. There is some debate among researchers as to how bullying behavior should be labeled or defined in whatever tool for assessment used in research. The substance of this debate is the contention by certain thinkers, Olweus (2003) perhaps foremost among them, that it is imperative for assessment to distinguish bullying from other forms of aggression, lest the line between bullying and other forms of aggression not be blurred. However, Cook et al. (2010) noted, "If the same factors predict both bullying and aggression, the distinction becomes irrelevant for designing and recommending preventative interventions" (p. 79).

The results of this analysis are enlightening. While the individual predictors of bullying borne out by the analysis are generally informative, the discussion in this dissertation's review of literature will focus on the contextual predictors as they more closely relate to the predictor variable used in this research. For the bully group, "peer influence" and "community factors" had the largest overall effect sizes. For victimization, "peer status" and "school climate" had the largest effect sizes. For the bully-victim group, all of the contextual factors had significant effect sizes; however, none of the 153 studies evaluated in the meta-analysis examined the impact of "community factors" as a predictor of being a bully victim (Cook et al., 2010).

The study pointed to the fact that the vast majority of studies analyzed focused on individual factors rather than contextual predictors. Because bullying occurs in a social context, often a school setting, more research is needed on those predictors that occur in context. Cook et al. (2010) believed research that examines only the predictors of bullying behavior based in the individuals themselves, in other words, research that "extracts the person from the context," will ultimately be biased in nature. Their conclusion strengthens the foundation of this dissertation's research in that it proposes a study in which the relationship between a contextual predictor variable and bullying will be tested (Cook et al., 2010).

Because the results of the analysis only identified, for each status group, the predictors with the largest and weakest effect sizes, the study goes on to offer a more well-rounded discussion of the predictors that characterize each of the three bullying status groups. Again, to narrow the discussion to contextual predictors and even further to those most closely related to the school context, the analysis bore out the facts that all

three groups perceive the environment of their school to be negative with the bully-victim group being highly susceptible to numerous predictors including poor academic performance. In addition to summarize the predictor profile for each group, the authors were interested in examining which predictors were shared across the groups as well as which, if any, were unique to one particular group (Cook et al., 2010).

Family/home, school climate, and community factors all significantly predicted involvement for both the bully and the victim groups. These shared predictors illustrate yet again the huge importance of understanding bullying and designing interventions from the perspective of social context (Cook et al., 2010). Among the predictors that were unique to one or another of the groups, poor academic performance was a significant predictor for the bully group but not the other two. This may be related more to the ways in which academic performance are linked to other predictors. For example, it is known that students with externalizing behavior such as defiance and hostility often do not perform well academically while there is a much weaker link between internalizing behaviors like depression and academic achievement; be it high or low. Nonetheless, the implications for further research drawn from this conclusion are clear. More study is needed on the ways in which academics relate to bullying and conversely the ways in which the high prevalence of bullying behavior in a school impact the overall academic achievement.

The final two sections of the study discussed the ways in which age and means of measurement moderated the effects of the meta-analysis and the concept of using predictors to design interventions. Age significantly moderated effects for certain predictors. This makes sense as many if not all of the individual predictors analyzed are

developmental in nature and will more or less predict for one or more of the status groups as the individuals move from childhood to adolescence. Interestingly, effect sizes were not impacted by the means in which bullying was measured. This suggests that changing labels or describing certain behaviors in a particular manner did not differentiate other sorts of serious aggression from bullying. In the end, any study that endeavors to examine and understand the phenomenon of bullying, whether the behavior itself or prevalence rates, must attempt to make the distinction between bullying and other forms of aggressive behavior, ranging for the mild to the very serious.

The takeaway from this study in terms of practical application as well as its implications on this dissertation are that a multi-faceted approach is warranted when either studying the bullying problem or attempting to intervene on the ground. An understanding of the many predictors of bullying and the distinction between those that are individual and those that are contextual is absolutely critical. While it would be difficult to design a study measuring the effect of all predictors on overall bullying in school (which cannot be understood without recognizing the unique role played by the members of each status group), it is essential at least to identify and control for those variables that will inevitably either limit or delimit the results. In short, as stated, to ignore or remove the impact of either an individual or contextual predictor variable when studying bullying would be to bias the study (Cook et al., 2010) (Olweus 2003).

There is a niche to be filled by more research studying the relationship between predictor variables and bullying. Not only is the need for more research clear, but also the foundation of researching predictor variables endemic to the school social context. Also, informative is the establishment of the three status groups fleshed out of the broader

phenomenon of bullying. It is imperative to understand and study the problem of bullying through these distinct lenses. To do otherwise would over-generalize and limit the specificity of the results.

Leadership

Before launching a study investigating high school principal leadership style as a predictor of a particular problematic student behavior, it is not only imperative to establish a sound understanding of the student behavior in question but of principal leadership style as well. There has been a tremendous body of work identifying and defining both theoretical and practical approaches to school leadership. There is also a growing collection of literature examining school leadership for its ability to affect and predict certain student and organizational goals and outcomes.

Citing the 1996 and 1998 work of Hallinger and Heck, Kruger, Sleegers, and Witziers wrote, "Although considerable conceptual and methodological progress has been made, little is known about how principals affect student outcomes, and which strategies they use in order to improve their schools" (Kruger et al., 2007, p. 2). This study is particularly relevant and informative to this dissertation's research in that its stated purpose is to increase the understanding of the chain of variables located between the principal and organizational and student outcomes. The study and its findings are constructed in three parts. Firstly, the results of the principals' impact on school effectiveness, including the theoretical models built on these results, are described. Secondly, the methodology of a research project on gender and school leadership is summarized. Finally, Kruger et al. explained a path-analysis, which uncovers some of the links in the chain of variables between the principal and certain student outcomes. Their

write-up concludes with a discussion of the contribution of the secondary analysis to the improvement of the understanding of the school principal's impact.

This study was valuable in that it substantiates the idea that effective principals perform leadership tasks and possess characteristics that are positively connected to student achievements of various kinds. The work is motivated by the belief that the empirical basis for the degree to which educational leadership matters to student achievement and positive school culture is not clear. The research on the topic spanning the previous two decades has raised more questions about the relationship between leadership and school outcomes than concrete answers. There are four primary points regarding the influence of leadership on student outcomes.

First, school leaders have a direct impact on the quality of the school organization and more of an indirect impact of the success of the school's culture. The second point clarifies this relationship between leadership and culture. The researchers found only weak direct-effects of school leadership on school culture (Kruger et al., 2007). Again, this suggests that the effect is indirect but there is a residual benefit on school culture of the direct-effect school leadership has on school organization. In short, effective school organization (which leadership directly impacts) leads to effective school culture. However, it is important to note that the authors hypothesize that if a transformational leadership perspective was included, the effect of leadership on culture may have been more direct.

The third point related to the principal's vision, which is simply defined as task orientation. The study makes the point that the school principal's vision has a "substantial impact" on the behavior of educational leaders throughout the school organization.

Finally, and perhaps most important to any study investigating the relationship between leadership style and another variable in the school, is the fact that leadership is affected by myriad institutional and situational variables that are unique to individual schools. Encapsulating this finding, the authors posit, "The results of our study also suggest that a contingency model of leadership could be helpful to understand the pathways through which principals influence school effectiveness and school improvement" (Kruger et al., 2007, p. 18).

While this study certainly has value and informs this dissertation's research, it provides primarily a theoretical and methodological model for studies on the relationship between leadership effects and other variables in the school. The authors give substantial coverage to a previous study of principal leadership that focused on leader gender. The methodological framework for this study certainly has value, but its implication on the broader question of the effect principal leadership has on student outcomes is questionable. Most valuable is the exploration of sound theoretical models for the further study of leadership effect. Also of note, is the conclusion that in a direct-effects model, the causality of principal leadership on student outcomes is either nonexistent or weak, in an indirect-effects model; principal leadership appears to have a significant effect on important variables of school culture and student outcomes (Kruger et al., 2007).

Many researchers and an ever-burgeoning body of literature seek to understand the leadership practices that directly or indirectly foster the improvement of students' experience and achievement in school. Transformational leadership is one style of leadership that has been the subject of systematic inquiry in non-school organizations for several decades, and in recent years has become a topic of study in educational settings.

Burns (1978) laid the groundwork for the idea of a transformational leadership style with his focus on the relationship between the leader and the followers. When this relationship focuses on the continuing pursuit of higher purposes, change for the better occurs both in the purposes and resources of those involved and in the relationship itself (Burns, 1978).

In 1990, Peter Senge introduced the concept of the learning organization in his seminal work, *The Fifth Discipline*. Senge crystalized the idea that the learning organization is characterized by adaptability. Therefore, the leadership of the school principal must be able to motivate and direct the organization and its stakeholders to learn to adapt to changes. Schools as learning organizations work within boundaries yet must be guided by very deliberate and clear strategies (Senge, 1990). Referring to systems of education, Bass (2000) wrote, "Learning organizations will strive to align the educational interests of relevant government agencies, school boards, superintendents, principals, teachers, students, parents, and the community" (p. 19). The effective leader (i.e., principal) in a learning organization must continually strive to increase the commitment of these various constituents to the goals of the organization.

The transformational leader in a school plays a pivotal role in precipitating change, and followers and leaders are bound together in the transformation process. The importance of developing followers to their fullest potential extended the concept of transformational leadership (Bass, 1985). Transformational leaders motivate followers by raising their consciousness about the importance of organizational goals. Leithwood and colleagues have described and assessed the effectiveness of transformational leadership in schools (Leithwood, 1994, 1995; Leithwood, Dart, Jantzi, & Steinbach, 1993; Leithwood et al., 1996; Leithwood & Jantzi, 1990; Leithwood, Jantzi, & Fernandez,

1994; Leithwood, Jantzi, & Steinbach, 1999). Their work distilled nine functions of transformational leadership, clustered in three areas—those that are (a) mission centered (developing a widely shared vision for the school, building consensus about school goals and priorities); (b) performance centered (holding high performance expectations, providing individualized support, supplying intellectual stimulation); and (c) culture centered (modeling organizational values, strengthening productive school culture, building collaborative cultures, and creating structures for participation in school decisions). Since the conception of transformational leadership theory, research has demonstrated the efficacy of a transformational leadership style in increasing the satisfaction, commitment, and effectiveness of those working in learning organizations. There appears to be a good fit between transformational leadership style and the needs and the goals of learning organizations (Bass, 2000). Considered in relation to what is known regarding effective interventions with school bullying behavior, a transformational leadership style suggests a potential correlation with a decrease in the prevalence of school bullying.

The study of school leadership has also fleshed out the leadership styles known as transactional and laissez-faire. As Burns (1978) once believed, transformational and transactional styles are not two ends of the same dimension (Bass, 2000). Transactional leadership has emerged as its own style based on the ideas and practices of either positive or negative contingent reinforcement. Simply put, the positive reinforcement of a contingent reward is provided by the leader in exchange for a follower meeting expectations or standards. The negative reinforcement of management-by-exception was practiced by transactional leaders when a follower failed to meet the standards or

exception theory and practice by whether it was active or passive in nature. From the theory of passive management-by-exception, a third leadership style known as "laissez-faire" emerged. Laissez faire leadership style was reflected by the leader who was unconcerned, procrastinated, and avoided making decision altogether (Bass, 2000; Hater & Bass, 1988).

Research points strongly to the fact that the leadership of the school principal is strongly linked to the success of the school. This fact is both long-standing and researchbased. The school effectiveness research of the last twenty years affirms the role of principal leadership in school success....Principals remain key individuals as instructional leaders, initiators of change, school managers, personnel administrators, problems solvers and boundary spanners for the school (Portin & Shen, 1998). Fifteen years following, the same remains salient in the literature. Consider the following from a 2010 survey regarding what respondents considered the most pressing matters from a list of issues in public school: "Teacher quality stood above everything else, but principal leadership came next, outstripping subjects including dropout rates, STEM education, student testing, and preparation for college and careers" (Simkins, Charner, & Suss, 2010, p. 9-10). Important to consider, with the consistent emphasis on the leadership of the school principal, is the evolving question of what type or style of leadership best suits the demands of the modern school in the twenty-first century. Evidently, principals can no longer function effectively as mere building managers. Effective principals must be or become leaders of learning capable of transforming learning organizations by building

positive culture and developing teams equipped and inspired to deliver effective instruction and programs (Wallace Foundation, 2012).

Leadership scholars remain divided on the theoretical and practical constructs indicated by today's learning organizations. Reaching back twelve years, in his writing regarding leadership style in educational organizations, Bass (2000) delineated the thinking of the day and highlighted the view that "top-down power is obsolete in the knowledge organization and is being replaced by non-positional power as a consequence of technological advances in networking" (p. 36). He was keen, as far back as 1990, to predict that those scholars and practitioners "favoring leadership that points the way and those favoring participatory leadership are both correct" (Bass, 2000, p. 37). Again, relative to questions about the relationship between principal leadership and behaviors such as bullying in the school, Sergiovanni (1990), a seminal scholar in the school leadership field, predicted that educational leaders will promote excellence in their schools with a mix of knowledge and skills ranging from good management and expert knowledge in their field to sound social and interpersonal relations. He promulgated the idea that principals will further promote excellence by acting as a role model of important relevant behaviors and beliefs (Sergiovanni, 1990).

The literature established the concept that the most effective principals, whether it is in their efforts toward high student achievement or positive school climate, will demonstrate both transformational and transactional styles of leadership. They will have to be active rather than passive and avoid shirking their leadership responsibilities. The effective principal is democratic in their human relations and cognizant of when they must accept the responsibility to take charge and make decisions. Again, the leadership

scholar, Bernard Bass summarizes the vision for the effective school principal in the modern era:

They will see themselves as change agents dealing with a multiplicity of problems faced by schools in the twenty-first century. They will help their students and teachers learn to be adaptable and prepared for the New World of globalism, diversity, the Information Age, and the new economics. They will convert mandates into challenges and opportunities. (Bass, 2000, pp. 37-38)

Summary

The body of research and literature establishes the facts that bullying behavior in schools is a significant problem, spanning many facets of students' experience in the school context and beyond. Also, principal leadership is established as central to the mission of school improvement. More specifically, the literature defined effective leadership theory and practice. This definition fortifies the research question and subsequent hypotheses posed in this study. The review of literature provides a foundational basis and theoretical girding for this research. Additionally, it illuminates gaps in the literature that this research aims to fill or at the very least close slightly.

Chapter 3: Methodology

The purpose of this study was to analyze the relationship between the prevalence of bullying in public Montana High Schools and the primary leadership style practiced by the high school principal. The study included a nonexperimental correlation design to statistically analyze the relationship between leadership style and student bullying behavior. The broader purpose was to shed light on whether a specific variable (leadership style) in the organization and administration of a high school has an effect on the prevalence of a particular student behavior (bullying). In so doing, the research endeavors to broaden the understanding of a problem behavior in high schools as well as how to prevent and respond to it. The independent variables included three distinct styles of leadership. The dependent variables included the actual number of incidents of bullying, intimidation, threats, and harassment that resulted in the perpetrating individual being suspended from school, either in or out of the school building.

This chapter includes the elements and methodology used to identify, collect, and analyze the data included in the study. The specific variables are discussed in more detail as will the population and the sample for the study. In discussing the variables in more detail the research question and the a priori assumptions were expanded upon relative to the independent and dependent variables. Validity, limitations, delimitations, and generalization were also fleshed out in greater detail.

Research Design

This quantitative analysis included a correlational nonexperimental design to measure the phenomenon of bullying in Montana public high schools by examining one measurement of the rate of occurrence of bullying behavior in the school's student

population. The study was used further to test the relationship between the leadership style of the high school principal and the incident rate of this particular phenomenon. As is the case with nonexperimental research, this study was used to measure variable and observable behavior. Cozby (2007) identified this observation and measurement as central to all behavioral science research. The study, through the gathering, measurement, and analysis of various data, was used to determine the prevalence of a specific behavior(s) in high school students as well as the particular leadership styles practiced by high school leaders (principals). The study also determined whether an association between these observable and measurable behaviors exists, and, more importantly, to determine the strength of that relationship. The researcher collected and analyzed original data as well as collected and analyzed data from an existing database; the School Discipline Data Collection compiled yearly and archived by the state of Montana's Office of Public Instruction.

Unit of Analysis

The high schools in the state of Montana with an enrollment of 200 or more students were the unit of analysis for this study. The behaviors in question—principal leadership style and bullying behavior—are to varying degrees common elements of educational organizations across the United States. However, individual states, regions, and schools all have their own unique culture and needs. In the scope and structure of public secondary education, in spite of increased federal policy and accountability, states, districts, and individual schools retain a relatively high degree of autonomy and decentralized governance. Therefore, the broader commonality of the behavior phenomena studied combined with the individuality of the schools at the state level

establishes the public high schools in the state of Montana with at least 200 students enorlled as the unit of analysis.

Dependent (Outcome) Variable

The dependent variable in this study, or the variable that Cozby (2007) defined as the "effect" aspect of the statistical relationship, was the incident rate, also referred to as prevalence, of bullying behavior in public Montana high schools. This study was used to examine the effects or the influence the leadership style of the principal has on the occurrence of this dependent variable of bullying behavior. This study does not claim to establish whether or not the dependent variable, the incident rate of bullying in a high school, is caused by the independent or predictor variable, principal leadership style. Rather, the study was used to measure the predictability of the relationship or whether or not an association existed between leadership style and the prevalence of bullying behavior in a school.

Independent (Predictor) Variable

In order to understand completely the relationship between the variables in the study, it is imperative to explain the independent variable more clearly. A confounding aspect of bullying behavior, as with many problem behaviors in schools, is the difficulty in definitively identifying its predictors in the school environment. In others words, environmental characteristics, such as socioeconomic makeup, dropout rate, class size, and conduct policies, all have the potential to predict the occurrence or existence of any number of problem behaviors within the student population. For the purpose of this study, the principals' average ratings in transformational, transactional, and laissez-faire leadership were the independent or predictor variables tested for their ability to predict

the number of student bullying incidents. Therefore, leadership style, in its distinct iterations, was the independent variable used in this study.

Confounding Variable

In a discussion of the independent and dependent variables of a study, the researcher identified and discussed potential confounding variables as well, also known as limitations. A *confounding variable* is a variable that exists outside the study but has the potential to be statistically related to the independent variable or to have a degree of predictability of the dependent variable. When confounding variables exist, the effects of the independent variable and the confounding variables are interrelated, and the researcher struggles to determine which of the variables is responsible for the observed effect (Cozby, 2007). As stated in Chapter One, widely present factors such as specific behavior intervention programs and district discipline policies as well as subjective variables unique to the culture of individual schools and classrooms such as ethnicity, gender, and geography, all play a potentially confounding role in this study. In light of this, the study may not provide a solution to the problem of bullying in school nor may it provide an exhaustive summative analysis of the bullying problem within the unit of study. This research was used to examine the relationship between the variables focused therein; therefore, the conclusion drawn from the results are limited as such.

Research Question and Hypotheses

This study attempted to illuminate the relationship between the prevalence of bullying in 49 public Montana high schools and the dominant leadership style practiced by the principal of each of the high schools in the sample. The following research question was posed:

Research Question. What is the relationship between the leadership styles of high school principals in Montana public high schools with an enrollment greater than 200 students and the number of bullying incidents in Montana public high schools with an enrollment greater than 200 students?

Hypotheses and Variables

In order to sharpen the focus of the study, nine hypotheses have been formulated. Below each hypothesis has been articulated according to three independent or a predictor variables. Following the independent variable is the hypothesis, or the researcher's prediction about the hypothetical relationship between the independent and dependent variables. Lastly is the null hypothesis also known as the a priori assumption about the relationship between variables.

Independent Variable 1. High school principal MLQ self-rating.

Hypothesis 1_a . There will be a relationship between the number of bullying incidents in a school and the school principal's self-rating in transformational leadership.

Hypothesis 1_0 . There will be no relationship between the number of bullying incidents in a school and the school principal's self-rating in transformational leadership.

Hypothesis 2_a . There will be a relationship between the number of bullying incidents in a school and the school principal's self-rating in transactional leadership.

Hypothesis 2_0 . There will be no relationship between the number of bullying incidents in a school and the school principal's self-rating in transactional leadership.

Hypothesis 3_a . There will be a relationship between the number of bullying incidents in a school and the school principal's self-rating in laissez faire leadership.

Hypothesis 3_0 . There will be no relationship between the number of bullying incidents in a school and the school principal's self-rating in laissez faire leadership.

Independent Variable 2. High school principal MLQ rater-rating.

Hypothesis 4_a . There will be a relationship between the number of bullying incidents in a school and the rater-rating of the school principal in transformational leadership.

Hypothesis 4_0 . There will be no relationship between the number of bullying incidents in a school and the rater-rating of the school principal in transformational leadership.

Hypothesis 5_a . There will be a relationship between the number of bullying incidents in a school and the rater-rating of the school principal in transactional leadership.

Hypothesis 5_0 . There will be no relationship between the number of bullying incidents in a school and the rater-rating of the school principal in transactional leadership.

Hypothesis 6_a . There will be a relationship between the number of bullying incidents in a school and the rater-rating of the school principal in laissez faire leadership.

Hypothesis 6_0 . There will be no relationship between the number of bullying incidents in a school and the rater-rating of the school principal in laissez faire leadership.

Independent Variable 3. High school principal MLQ averaged self-rating and rater-rating.

Hypothesis 7_a . There will be a relationship between the number of bullying incidents in a school and the average of the school principal's self-rating and rater-rating in transformational leadership.

Hypothesis 7_0 . There will be no relationship between the number of bullying incidents in a school and the average of the school principal's self-rating and the rater-rating in transformational leadership.

Hypothesis \mathcal{S}_a . There will be a relationship between the number of bullying incidents in a school and the average of the school principal's self-rating and the raterrating in transactional leadership.

Hypothesis 8_0 . There will be no relationship between the number of bullying incidents in a school and the average of the school principal's self-rating and the raterating in transactional leadership.

Hypothesis 9_a . There will be a relationship between the number of bullying incidents in a school and the average of the school principal's self-rating and the raterrating in laissez faire leadership.

Hypothesis 9_0 . There will be no relationship between the number of bullying incidents in a school and the average of the school principal's self-rating and the raterating in laissez faire leadership.

Hypothesis 10. In an effort to produce an even greater understanding of the ways in which the variables of leadership and bullying interact in a school, a tenth hypothesis was also tested in which the rate of bullying incidents was treated as the independent variable and leadership style the dependent variable. The above nine hypotheses predicted that a relationship will exist between high school principals' strength or

weakness in a particular leadership style and the rate of bullying incidents in their schools. In short, the principal's leadership style will have an effect on the rate of bullying in the school. In this tenth hypothesis, it was predicted that a relationship will exist between the rate of bullying incidents in a high school and the strength or weakness of the principal's leadership in terms of the three styles measured by the MLQ. In short, the rate of bullying incidents will have an effect on the principal's leadership style. In order to determine whether the rate of bullying incidents in a school could predict the leadership style of the principal, the following hypothesis and null hypothesis were tested:

Hypothesis 10_a . There will be a relationship between the school principal's leadership ratings and the number of bullying incidents in a school.

Hypothesis 10_0 . There will be no relationship between the school principal's leadership ratings and the number of bullying incidents in a school.

Population and Sample

This quantitative research study was used to illuminate and articulate the relationship between the leadership styles practiced by high school principals in the 49 Montana public high schools with enrollments in excess of 200 students and the prevalence of bullying behavior in their high schools. The public high schools in the state of Montana were the unit of analysis in the study. The population for the study included 49 public high schools in Montana with an enrollment larger than 200 students. All 49 schools in the population were sampled in an attempt was made to collect data from each school. Bullying data was collected for all 49 schools; while leadership data was collected from the 19 principals and 22 raters who participated. Therefore, the sample

ultimately analyzed consisted of 19 high school principals, 22 raters, and the rate of bullying incidents from their corresponding high schools. This nonprobability sample could be argued to be a convenience sample; however, in the researcher's judgment, given that the overwhelming majority of Montana high school students are represented in the population, this sample provided a sound representation of the population.

Multiple attempts were made by the researcher to increase the response rate on the MLQ survey. The MLQ online campaign generated an e-mail invitation to both the leader and to the raters the leader identified and invited to complete the rater-survey. The content of the e-mail was customized by the researcher. In this case, the researcher also sent a personal e-mail to each participant, further explaining the nature of the research and encouraging him or her to participate and complete the MLQ. Finally, a phone call was made to the leaders to encourage participation, discuss the nature of the research, and field any questions participants may have had. In spite of these efforts, the response rate for the MLQ did not increase beyond the final sample size of 19 school leaders and 22 raters.

Originally each principal was asked to invite at least nine raters to complete the rater-survey, assessing leadership style. When it became apparent that response rates on both self and raters surveys were below expectations, it was speculated that the number of raters required by the campaign was an impediment. At that time, a reminder email was sent to the leaders, adjusting the required number of raters from nine to four in the hopes of increasing response rates. When said modification failed to increase the response rate, a final reminder email was sent in addition to the follow-up phone calls, stating that even one rater would be sufficient. In the end, 97 total raters were invited by

the leaders to complete the rater survey. The 22 raters who completed the rater survey represent a response rate of 23%, even less than the 38% response rate for the leaders themselves. The number of raters invited to participate by each principal ranged from one to 17.

There are plausible explanations for the low rater response rate. The rater surveys are two steps removed from the researcher. It was up to the principals to decide who to invite to rate their leadership style. The rater could be at a level above, below, or the same as the principal in the organizational hierarchy. Each principal sent each rater an invitation to participate via an email containing a link to the rater survey. The rater email was a standardized letter generated by the MLQ and also contained content customized by the researcher. This third party contact was the only communication between the researcher and the raters. There were no raters in the sample of 22 working at a level above the principal. Five of the 22 raters were indicated to be at the "same" level as the principal, which in this case referred to assistant principals. The remaining 17 raters were either teachers or paraeducators.

Data Collection

This study used an archival as well an original research design. Data for this study were gathered through an archival source as well as an original source. The data representing the prevalence of bullying behavior in a school were collected through an archival data source. The archival data used for this study was the number of incidents of bullying and bullying-related behavior occurring during the 2011-2012 school years that were disciplined with a suspension from school, either in or out of school building.

Montana public school districts are required to report this data yearly to the Montana

Office of Public Instruction (OPI), where it is categorized for each specific school and correspondent school year.

The data representing high school principal leadership in the sample schools consisted of original source data gathered by the researcher. It included data obtained through the administration of the latest version of the Multifactor Leadership Questionnaire, the MLQ 360 Form 5X. The MLQ rates leadership behavior according the three leadership styles, ranging from low performing, passive leaders (laissez faire) to those who lead by giving followers contingent performance rewards and sanctions (transactional) to leaders who transform their followers into becoming leaders themselves (transformational). The Multifactor Leadership Questionnaire is a model of leadership style measurement that offers a full range assessment across nine leadership factors or subscales.

When using a survey instrument like the MLQ to gather original data, it is imperative to consider the question of the instrument's reliability and validity. Validity is best conceptualized as a test of how well an instrument measures the particular concept it claims to measure, which, in the case of the MLQ, is leadership. Reliability on the other hand is a test of how consistently an instrument measures that concept (Sekaran, 2006). The reliability and validity of the nine-factor MLQ has been tested and many researchers regard the MLQ to be the best validated measurement of transformational and transactional leadership behaviors (Ozaralli, 2003). In spite of this view, there have been other studies which examined and questioned the structural validity of the MLQ (Tepper & Percy, 1994). Muenjohn (2008) conducted a study to test statistically the reliability of the MLQ in an attempt to establish evidence that the MLQ indeed produced the data for

which it was designed. In Muenjohn's study, a Cronbach alpha produced an alpha statistic of 0.86 for the MLQ. Citing Nunally (1967), Muenjohn (2008) notes, "the reliability values were greater than 0.70, indicating an acceptable statistic testing level" (p. 8).

These findings implied the nine-factor model appeared to be the best theoretical construct representing the latest form of the MLQ, whether it was tested with a large sample, as in the Bass and Avolio study (n = 2,154) referenced in the MLQ Manual and Sample Set (Bass & Avolio, 1995, 2000, 2004), or the smaller sample in Muenjohn's (2008) study (n = 138). "Therefore, this should provide researchers with confidence, to some certain extent, in using the MLQ 5X version to measure the nine leadership factors representing transformational, transactional, and non-leadership behaviors" (Muejohn, 2008, p. 10).

Data Analysis

The research question posed by the study was answered through the analysis of sets of data on both principal leadership style and the prevalence of bullying behavior in each of the schools in the study. A priori, the relationship between the variables in the study is unknown. This is known as a bivariate relationship in statistics. In such a scenario, the strength and the nature of the relationship between the variables are not known. The researcher first conducted a correlational analysis using a Spearman's rho to determine correlation between variables and eliminate duplication of data within separate variables. A linear regression analysis was conducted to examine evidence for a relationship or association between the variable of leadership style and the variable of bullying incident rate. A correlation analysis was then developed to determine the

accuracy of the estimating equation in describing the degree to which the variables were related if at all. In this equation, leadership style functioned as the known or independent predictor variable while the incident rate of bullying behavior functioned as the unknown or dependent outcome variable.

Summary

The design of this research is intended to determine the predictability and the strength of the relationship between an independent variable, in this case principal leadership style, and a dependent variable, in this case the rate of bullying behavior in public Montana high schools. In addition to an overview of the design, the variables were categorized and discussed. The unit of analysis, the population, and the sample were identified and a rationale for each was given. The research question and subsequent hypotheses were articulated. Lastly, the specific data, and methods of gathering and analysis were fleshed out as well. It is the intention of the research to shed light and expand knowledge in the field of high school principal leadership by examining the relationship between principal leadership style and the rate of bullying incidents, a problematic student behavior.

Chapter 4: Results

This study examined the relationship between the leadership style of high school principals in Montana and the number of incidents of bullying, which occurred in their schools during the 2011-2012 school year. From 179 public Montana high schools, this study established a population of 49 principals from the 49 high schools with 200 or more students enrolled. The Multifactor Leadership Questionnaire (MLQ), an online leadership style inventory, was sent to all 49 principals. Each principal was asked to complete a self-rating and to identify and invite at least four other raters from any level in their school or district organization to complete a survey about the principal's leadership. Nineteen of the 49 principals participated. The resultant leadership data were analyzed along with data on the number of incidents of bullying occurring in each principal's school during the 2011-2012 school year. The bullying data were gathered from the Montana Office of Public Instruction's Discipline Collection Report 2011-2012. The data represent the actual number of incidents of bullying behavior disciplined by each school's administration during the year of the study.

For this study, it was hypothesized that a relationship could be found between the leadership style of a given Montana high school principal and the rate of bullying incidents (BI) in said principal's school. A leadership inventory was conducted using the MLQ, an established leadership survey used for identifying leadership strengths and weaknesses based on the three categories of transformational, transactional, and laissez faire leadership style. The MLQ split each of the three styles into distinct subcategories, five transformational subcategories, two transactional subcategories, and two laissez-faire subcategories.

A leader evaluated by the MLQ has a rating between 0 and 4 in each of the above subcategories; therefore, it was not feasible to categorize a given principal as an exclusively transformational leader or another as a transactional leader. To remedy this situation, a regression model with average ratings as the independent variable and bullying incidents as the dependent variable was developed for each of the three main groups: (TF) = transformational leadership, (TS) = transactional leadership, and (LF) = laissez faire leadership. Each of the three leadership categories was examined for all principals for a total of nine testable hypotheses. The three categories were examined in terms of self-rating only, rater-rating only, and an average of self-rating and corresponding rater-rating (unweighted average). For example, the null hypothesis for one of the nine, denoted by the lower case letters a through i was: Ha0: There will be no relationship between the number of bullying incidents and the principal's self-rating in transformational leadership.

The analyses assessed whether the leadership style of a principal affects the number of bullying incidents at their school. In general, as well as in the context of the educational setting, higher ratings in the transformational and transactional categories were considered favorable, while higher ratings in laissez faire leadership were considered less favorable (Leithwood & Jantzi, 2006). It was unknown how these assumptions would relate, if at all, to the rate of bullying, so no prediction or statement was hypothesized about the specific nature of the tested relationship. Neither did the study hypothesize the direction of the relationships between bullying incident rates and MLQ leadership ratings to be either positive or negative, only that a relationship that was statistically significant would exist. In a tenth and final hypothesis, an alternative view

was tested. This tenth hypothesis tested whether the rate of bullying incidents predicted the leadership style of the high school principal as measured by the principals' averaged MLQ ratings in the three primary leadership styles.

This chapter will summarize the statistical analysis methods used with a brief explanation or rationale for each. There will be a discussion of the descriptive statistics, including descriptive information for the sample data as well information regarding central tendencies and variability for both independent and dependent variables. Finally, this chapter will present the results of the analyses organized by hypotheses. These results will include the researcher's interpretations thereof and a thorough discussion of their meaning.

Data Analysis

The analysis was conducted using Microsoft Excel and the statistical computing software R. The names of the Montana high schools and their corresponding principals were removed from the data in order to provide anonymity. The regression analysis was conducted using R where the assumption was made that the average ratings for a given hypothesis could be considered a quantitative variable. The responses to the 45 questions on the MLQ survey instrument were Likert-scale integer-value answers from 0 to 4; therefore, the ratings produced by the MLQ survey were technically ordinal data. It could be argued that treating them as continuous is improper; however, with the large number of questions per main category (approximately eight or more), the average responses are nearly continuous, given the fact that the survey questions do identify a given characteristic efficiently and accurately.

Along with the regression analysis, a Spearman's rho analysis was conducted

using the psych package in R. This part of the analysis looked at the association between the average rating types (TF, TL, LF, self, rater, and average of both) and the rate of bullying incidents, without the linearity assumption, which provided an alternative to the least squares regression for assessing whether the number of bullying incidents was associated with the ordinal rating scores. In the correlation analysis, all *p*-values were adjusted for multiple comparisons. Finally, for Hypothesis 10, a multivariate multiple regression model was tested in an attempt to determine whether a given number of bullying incidents could predict a principal's ratings in transformational, transactional, and laissez faire leadership style.

Descriptive Statistics

The population for this study was the 49 public high schools in the state of Montana with an enrollment of at least 200 students and each high school's principal. The rate of bullying incidents from the 2011-2012 school year was gathered for each school, and the MLQ on-line survey was sent to each principal. There were 19 leader respondents and 22 rater respondents from the 49 high schools in the population. Therefore, the sample size for this study was 19 Montana high schools and their corresponding 19 high school principals and 22 raters.

The 19 schools represented a diverse range of Montana high schools, with an enrollment ranging from 204 students at the smallest school in the sample to 1825 students at the largest. Seven of the schools are located in class AA high school districts, the largest in the state of Montana. Six of the schools are class A high schools, and six of the schools are class B high schools. Class AA high schools are considered urban by Montana standards while class A and B high schools are located in rural and semirural

Montana communities.

The leaders were all identified and confirmed as each high school's principal during the school year of the study (2011-2012) by the Montana Office of Public Instruction. Sixteen of the principals were male and three were female. The class B high school principals functioned as the single administrator in their schools. The class A and AA principals functioned as the head of an administrative team that included one or more assistant principals. In terms of the raters, 17 of the 22 raters were teachers or paraeducators and five were assistant administrators from the principal's leadership team. There were no raters from an organizational level above any of the principals or from the school district's central administration.

The rate of the bullying incidents for each of the 19 Montana high schools is the combined total number of incidents of *threat/intimidation*, or other sexual offense and harassment, bullying, intimidation (nonsexual) that occurred during the 2011-2012 school year (Glossary School Discipline, 2012). As noted in the limitations section of this study, this incident rate represents one measurement of the bullying problem in the sample schools. While it illuminates the problem and provides a quantifiable measurement variable, it should by no means be construed to represent a comprehensive or complete measurement of bullying behavior in the school.

The rate of bullying incidents for the 19 high schools ranged from zero to 17. The median number of incidents of bullying was four. Seven of the 19 schools reported a bullying rate between zero and two incidents, which fell within the first quartile of data. Six of the 19 schools reported a bullying rate between three and four incidents, which fell within the second quartile of data. Three of the 19 schools reported a bullying rate

between five and eight incidents, falling within the third quartile of data. The remaining three schools reported a bullying rate between nine and 17 incidents, placing those schools within the fourth quartile of data.

Comparatively, the median number of bullying incidents for the 49 schools in the population was 4.53, with a minimum rate of zero ranging to a maximum rate of 17. The data gathered from the 19 schools in the sample constituted a sound representation of the larger population. The five number summary of bullying incidents for the sample schools is displayed in Table 1.

Table 1

Five Number Summary for Rate of Bullying Incidents

Minimum	First quartile	Median	Third quartile	Maximum
0	2	4	8	17

An interesting and important perspective on the bullying data was to consider it as a percentage of each school's total enrollment, since enrollment varied widely from 204 students at the smallest school in the sample to 1,825 at the largest. The average percentage of bullying incidents per students enrolled is .95% and the median is .71%. The school with the largest number of incidents reported a bullying rate of 3.4% per capita, while the school with the lowest reported 0% per capita rate of bullying incidents.

The MLQ 360 (Form 5X Short) online survey was sent to 49 principals. This benchmark form of the MLQ includes both self and rater surveys. The self-survey measured the leaders' own perception of their leadership behaviors. The rater survey was used to measure leadership as perceived by people at a higher level, equal level, or lower level in the organization than the leader. Each form contains 45 questions. According to

the MLQ manual, the ideal number of raters for a leader is 8-10, with at least 3 in the subordinate category. The MLQ also included 9 outcome items (subscales) rating the leader's effectiveness and the satisfaction the rater has for the leader. The self-rating provided a contrast between how the leader perceived the self and how other raters perceived the leader.

For this study, each principal was asked to complete a self-survey and also to select between one and 25 people in the organization to complete a rater survey about the principal. Nineteen of the 49 principals participated. These 19 principals sent rater-surveys to 97 raters, 22 of which participated. The 45 questions had the following six response options: "unsure" (not factored), "not at all" (score of zero), "once in a while" (score of one), "sometimes" (score of two), "fairly often" (score of three), and "frequently, if not always" (score of four).

The MLQ results provided the researcher with a rating for each leader in each of the three leadership style categories. As stated, a regression model with average ratings as the independent variable and bullying incidents as the dependent variable was developed for each of the three main leadership style groups: TF, TS, and LF. The three categories were examined in terms of self-rating only, rater-rating only, and an average of self and corresponding rater ratings (unweighted average).

Tables 2, 3, and 4 show the overall average leadership questionnaire results for the 19 principals in the study in terms of self-rating, rater-rating, and the average of the self and the rater ratings. Also displayed in these tables are the national percentiles from the MLQ norming study against which to compare the results of the Montana principals who took part in this study. It was informative to analyze and describe the results of the

MLQ in the context of how the 19 principals rank against national norms as well as to consider the differences between the self, rater, and average-of-both ratings.

Table 2

MLQ Self Survey National Percentiles

	Percentiles	Transform	Transact	Laissez-Faire
1	5.00	2.05	1.12	0.12
2	10.00	2.30	1.38	0.12
3	20.00	2.55	1.75	0.38
4	30.00	2.80	1.88	0.50
5	40.00	2.90	2.12	0.68
6	50.00	3.05	2.25	0.75
7	60.00	3.15	2.50	1.00
8	70.00	3.35	2.62	1.00
9	80.00	3.50	2.88	1.25
10	90.00	3.70	3.25	1.62
11	95.00	3.90	3.38	1.88

MT Principals MLQ Average Self-Ratings

	Transform	Transact	Laissez-Faire
Means	3.21	2.39	0.64
Standard Error	0.26	0.38	0.37

The 19 principals in the study self-rated in transformational leadership style between the 60th and 70th percentile, higher than the national average. The principals in the study also rated themselves more transactional than national norms, ranking between the 50th and 60th percentiles. Finally, principals rated themselves between the 40th and 50th percentile nationally in laissez faire leadership. The psychology of the self-rating is interesting considering the charge of rating one's own leadership across three distinct styles, two of which are inherently more positive and a third that is less than positive.

Table 3

MLQ Rater Survey National Percentiles

	Percentiles	Transform	Transact	Laissez-Faire
1	5.00	1.30	0.77	0.00
2	10.00	1.75	1.12	0.00
3	20.00	2.19	1.50	0.12
4	30.00	2.55	1.81	0.38
5	40.00	2.76	2.06	0.50
6	50.00	2.90	2.31	0.75
7	60.00	3.13	2.50	0.88
8	70.00	3.35	2.75	1.09
9	80.00	3.59	3.00	1.48
10	90.00	3.85	3.38	1.88
11	95.00	3.95	3.62	2.25

MT Principals MLQ Average Rater-Ratings

	Transform	Transact	Laissez-Faire
Means	3.28	2.34	0.56
Standard Error	0.47	0.73	0.50

Table 3 shows the national percentiles for the rater survey as well as the averages for the rater survey for the 19 Montana high school principals in the study. Others in the organization rated the principals in the study at just above the 60th percentile, again rating the participants higher than national norms. It is interesting to note that the raters rated their principals higher (versus the self-ratings) on average in transformational leadership style while principals rated themselves slightly higher in transactional leadership. An explanation for this phenomenon could be the fact that transformational leadership characteristics affect others in the organization in more direct and intrinsic ways, with a focus on such things as inspiration, shared vision, and motivation.

Transactional leadership, being more linear as exemplified by the practice of contingent-reward, may have resonated more with the leaders themselves and how they measure

their effectiveness as a leader. The raters in the study ranked their leaders slightly above national norms (slightly above the 50th percentile) in laissez faire leadership style.

Interestingly, the leaders rated themselves higher than their raters in laissez faire leadership, perhaps acknowledging the old saying that we are our own harshest critic.

Table 4 shows the third MLQ rating, the average of the self-rating and the raterrating, in terms of both national percentiles and the ratings of the 19 principals in the study.

Table 4

MLQ Average of Self-Rating and Rater-Rating National Percentiles

	Percentiles	Transform	Transact	Laissez-Faire
1	5.00	1.45	0.88	0.00
2	10.00	1.85	1.25	0.00
3	20.00	2.25	1.60	0.17
4	30.00	2.55	1.88	0.38
5	40.00	2.75	2.12	0.50
6	50.00	2.90	2.33	0.75
7	60.00	3.15	2.46	0.90
8	70.00	3.39	2.68	1.08
9	80.00	3.52	3.00	1.38
10	90.00	3.75	3.31	1.75
11	95.00	3.90	3.62	2.25

MT Principals MLQ Average of Self-Rating and Rater-Rating Average Ratings

	Transform	Transact	Laissez-Faire
Means	3.17	2.39	0.68
Standard Error	0.34	0.47	0.41

The averaged ratings ranked very similarly on a national scale to where the self and rater surveys did individually. Taking the average of the two surveys, Montana principals rated slightly above the 60th percentile in transformational leadership. They were almost right at the norm nationally for transactional leadership, and less laissez faire

than national norms, scoring between the 40th and 50th percentile. It was clear from the consistency of the results of the self, rater, and averaged surveys that the leadership data generated by the MLQ provided the study with an accurate measurement of the leadership styles of the 19 principals. Also, a comparison of the results of this study against national norms for the MLQ illustrates the fact that overall these Montana school leaders tend to be moderately more transformational and transactional in their leadership as well as moderately less laissez faire than the national norms.

Findings and Discussion

A correlation analysis was performed to determine the strength of the relationship between the number of bullying incidents and each of (a) the averaged ratings, (b) the transformational ratings alone, (c) the transactional ratings alone, and (d) the laissez faire ratings alone. A correlation analysis enabled the identification and possible removal of the unnecessary duplication of a variable A and a variable B, both capturing the same information. Using the psychpackage in R, the correlation analysis was conducted using the Spearman method, which calculates an ordinal-based measure of association known as a Spearman's rho. Given that this study deals with ordinal response variables, the Spearman's rho test was more appropriate for this situation as it was not necessarily appropriate to treat these responses as linearly scaled, quantitative information that is required by the more common Pearson's r correlation method.

The maximum correlational coefficient for the unweighted average of selfratings plus rater-ratings was 0.70 (Spearman's rho). This was between the Idealized Influence Attributes category (TF_{cat 1)} variable and the Contingent Reward category (TS_{cat 1}) variable with corresponding p-value of 0.03. This was the only statistically significant correlation from the unweighted averaged self- and raterratings group. Although this correlation was strong, this was expected based on documentation from the norming study in the MLQ Handbook. The MLQ questions from these categories were assessing a similar range of behaviors. The maximum correlation coefficient for the self-rating group was 0.79 for the same two subcategories. However, when looking only at the correlation between the full transformational (averaged) and the full transactional categories, the value of this correlation was only 0.51, which was no longer statistically significant (p = 0.16). The maximum correlation coefficient for the rater-rating group was 0.75 (p < 0.005), and in this case, there were a number of statistically significant correlations between subcategories, which disappeared when considering the average ratings. The correlation in this category may be due to eight rater-ratings (of the 22 total) corresponding to only two of the 19 principals. The observed correlation was not unexpected, however, as the MLQ documentation predicted this correlation, and also because there were a large number of raters evaluating a comparatively small number of the 19 total principals.

The Spearman's rho correlation analysis failed to identify any statistically significant correlations between the number of bullying incidents and any of the averaged rating categories. There were also no correlations between bullying incidents and any of the subcategories (p > 0.5 for all).

Hypothesis Tests

The analysis of the first nine hypotheses assumed a model of the following form:

$$Y_i = \beta_{i0} + \beta_{i1} X_1 + i$$
; for $i = 1, ..., 9$

Therefore the first nine hypotheses addressed primarily the following question: "Does $\beta_{i1}=0$ for $i=1,\ldots,9$?" Here, the y_i 's are the MLQ ratings and the x_1 are the number of bullying incidents. The categories were denoted as follows: a= self and rater averaged; s= self-only; t= rateronly. So, for example, β_{1TFa} indicates the β_{1} variable for the model of the averaged MLQ self and rater ratings versus the number of bullying incidents. A regression analysis was conducted on the first nine testable hypotheses. Table 5 displays the hypothesis test output for the nine hypotheses organized by the average of the self and rater ratings, self-only ratings, and finally the rater-only ratings.

Table 5

Hypothesis Test Output by Parameter

Parameter	Beta_i1 Value	Std. Error	t-statistic (1 df)	p-value	R-value
TFa	-0.0039	0.0145	-0.2662	0.7931	0.0626
TSa	-0.0031	0.0211	-0.1463	0.8853	0.0345
LFa	-0.0234	0.0196	-1.1915	0.2489	0.2704
TFs	-0.0379	0.0166	-2.2822	0.0356	0.4843
TSs	-0.0064	0.0258	-0.2499	0.8057	0.0605
LFs	0.0212	0.0222	0.9567	0.3521	0.2260
TFt	0.0098	0.0213	0.4605	0.6502	0.1024
TSt	-0.0075	0.0330	-0.2268	0.8228	0.0507
LFt	-0.0418	0.0207	-2.0203	0.0569	0.4117

In this study, the basis for the strength of the evidence or the magnitude of correlation comes from the work of the psychologist, Jacob Cohen. Cohen has written extensively on the topic of correlational strength. In his 1988 seminal work, he submitted that a correlation (expressed in these

analyses as an R-value) of 0.5 is considered large, 0.3 is moderate, and 0.1 is small. The standard interpretation of his scale is that anything 0.5 or greater is large, 0.5-0.3 is moderate, 0.3-0.1 is small, and anything smaller than 0.1 is insubstantial, trivial, or otherwise not worth considering. His corresponding thresholds for standardized differences in means are 0.8, 0.5 and 0.2 (Cohen, 1988).

In the following sections, tables 6, 7, and 8 display the hypothesis test output for the nine hypotheses organized by the average of the self and rater ratings in table 6, self-only ratings in table 7, and finally the rater-only ratings in table 8 with the corresponding correlational coefficients (R-values) included. The direction of the relationship is given by the sign of the slope value expressed as the beta_1 value in each of the three tables. The R-value measures the strength of the linear association; values closer to zero indicate weak relationships while values closer to the absolute value of one indicate stronger relationships.

 $Hypotheses \ 1_a - 3_a - MLQ \ Self-Ratings$

Table 6

Hypothesis Test Output by Parameter

Parameter	₿i1 Value	Std. error	T-statistic (1 d	l.f.) R-value
β_{1} TFs	-0.03790	.0166	-2.2822	.04843
$\beta 1TSs$	-0.00640	.0258	-0.2499	0.0605
β1LFs	0.0212	0.0222	0.9567	0.2260

The first three hypotheses referred to the 45 question MLQ self-survey taken by the 19 principals in the study. In this survey, each principal was asked to rate his or her own leadership behaviors in each of the three categories measured. It

was predicted a relationship would exist between the rate of bullying incidents and school principals' self-ratings in transformational, transactional, and laissez faire leadership styles. The direction of the relationship between bullying and these leadership styles was unknown prior to this analysis. In other words, it was not known, for example, whether higher or lower self-ratings in transformational leadership style would have correspondingly higher or lower rates of bullying in their schools.

In terms of the relationship between the number of bullying incidents and MLQ self-ratings, using Cohen's scale to determine strength, there was moderate evidence to suggest that the number of bullying incidents is larger when the transformational self-rating is lower (p-value = 0.0356). In other words, there was a statistically significant relationship between an increased number of bullying incidents and school leaders who self-rate as being less transformational in their leadership style.

The R-value for the relationship between principal's self-ratings in transformational leadership and the rate of bullying incidents was 0.4843. Using Cohen's scale as a determinant of strength, the magnitude of this correlation translated qualitatively is moderate or medium. The self-ratings in the transactional and laissez faire groups showed no statistically significant evidence of a positive or negative relationship with the rate of bullying incidents, with corresponding p-values of 0.8057 and 0.3521, respectively.

Hypotheses $4_a - 6_a - MLQ$ Rater-Ratings

Table 7

Hypothesis Test Output by Parameter

Parameter	β_{i1}	Std. error	T-statistic (1 d.f.)	R-value
β1TFt	0.0098	0.0213	0.4605	0.1024
β1TSt	-0.0075	0.0330	-0.2268	0.0507
β1LFt	-0.0418	0.0207	-2.0203	0.4117

The second three hypotheses were based on the 45 question MLQ rater-survey. All leaders in the study were prompted to send the rater survey link to a minimum of four and up to a maximum of 25 raters in their organization. The raters could be working at a lower, equal, or higher level in the organization. Like with the self-ratings, it was hypothesized there would be an association between the number of bullying incidents in a school and the way other raters in the school rated the principal's transformational, transactional, and laissez faire leadership behaviors. The direction of the relationship between bullying rates and principals' transformational, transactional, and laissez faire leadership styles was not predicted.

In terms of bullying incidents and MLQ rater-ratings, there was no evidence of a relationship between transformational leadership ratings and bullying incidents (p-value = 0.6502) and similarly no evidence to suggest a relationship between transactional leadership ratings and bullying incidents (p-value = 0.8228). However, statistically significant evidence was found of a moderately negative relationship between the rater-ratings in the laissez faire category and the number of bullying incidents (p-value = 0.05695). Again, using Cohen (1998) to determine correlational magnitude, with an R-value of .4117, this moderately negative

relationship was statistically significant in the opposite direction of what might be theoretically anticipated. Given the negative implications of laissez faire leadership, it is plausible to associate laissez faire principals with schools with higher rates of bullying incidents. This was especially believed to be true in the case of the rater surveys in that when others, subordinates in particular, perceive a laissez faire leadership style in practice, they are less likely to work toward school goals and improvements, both academic and behavioral (Gregory, Henry, Schoeny, & Metropolitan Area Study Research Group, 2007). However, in the case of this sample, the opposite proved true. It is unclear why high laissez faire ratings corresponded with low bullying rates, but theories and conclusions are discussed in Chapter Five.

Hypotheses $7_a - 9_a - MLQ$ Averaged Self-Ratings and Rater-Ratings

Table 8

Hypothesis Test Output by Parameter

Parameter	β _{i1} Value	Std. error	T-statistic (1 d.f.)	R-value
β1TFa	-0.00387	0.01454	-0.266	0.0626
β1TL a	-0.003081	0.021058	-0.146	0.0345
β1LFa	-0.02337	0.01962	-1.192	0.2704

The final three hypotheses tested the averaged self and rater ratings and the number of bullying incidents. This MLQ rating is arguably the most complete picture of leadership style as it represents a 360 degree view with information from the leader and other raters. There was no evidence to suggest that a relationship existed between the number of bullying incidents and any of the three un-weighted averaged MLQ self and rater ratings (pTF = 0.7931, pTS = 0.8853, and pLF = 0.2489).

Hypothesis 10_a

An alternative view was tested in a tenth hypothesis. This tenth hypothesis tested whether the rate of bullying incidents predicted the leadership style of the high school principal as measured by the principals' averaged MLQ ratings in the three primary leadership styles. In this hypothesis, the rate of bullying incidents was made the independent variable and the principal's averaged MLQ rating in each category, the dependent variable. A multivariate multiple regression model was tested in an attempt to determine whether a given number of bullying incidents could predict a principal's ratings in transformational, transactional, and laissez faire leadership style. Using the "lm" function, a part of the base package in R, a multivariate multiple regression model, with bullying incidents as the independent variable and average MLQ ratings as the dependent variable, was fit to the data. Table 9 displays the results of four different statistical methods of performing a multiple ANOVA.

Table 9

Hypothesis Test Output by Parameter

Multivariate Test Type	Test Statistic	Num D. of F.	Den D. of F.	Approximate F (p-value
Pillai	0.0851186	3	16	0.496 (0.690)
Wilks	0.9148814	3	16	0.496 (0.690)
Hotelling-Lawley	0.0930379	3	16	0.496 (0.690)
Roy	0.0930379	3	16	0.496 (0.690)

There was no evidence (p > 0.5) of a relationship between bullying incidents as a predictive factor and the MLQ ratings as a matrix of dependent variables.

Summary

In general, an understanding of whether or not a relationship exists between leadership practices and organizational goals is of paramount and obvious

importance. Regardless of the sort of organization, both theoretical frameworks and practical applications are enhanced by a more thorough and scientific grasp of the power leadership does and does not wield in affecting organizational aims.

Establishing a profile of the leadership styles of Montana high school principals and testing the relationship between them and the rate of bullying incidents in their schools shed new light on an important and often dangerous issue facing education at all levels. The literature has established the importance of understanding the relationship between school leadership and various educational outcomes and phenomena. The results of this study expand the body of knowledge in terms of creating a better sense of the ways in which the practice of educational leadership does and does not directly affect the occurrence of bullying behavior in the school. By better understanding this, school leaders who endeavor to reduce the rate of bullying in their schools can more effectively shape their efforts and energies to maximize results.

It appears leaders who regard their leadership to be more transformational or at least strive for this reality, have lower rates of bullying in their schools. In Chapter Five, the researcher will delve into greater detail, conclusions, and recommendations regarding this finding. Additionally, more discussion is needed regarding the evidence pointing to principals who are perceived by others as more laissez faire in their leadership also having lower rates of bullying in their school. This finding ran contrary to the belief that laissez faire leadership is less likely to produce positive results. Finally, the null hypotheses that were not rejected by the results of the analysis are also worthy of further discussion. Simply because

evidence of a relationship or association was not found, does not mean new knowledge and understanding is not revealed by the result.

Chapter 5: Conclusions and Recommendations

In this chapter there is a discussion of the findings and the conclusions drawn from those findings. The findings and conclusions from this study have implications for practicing school leaders in the state of Montana and beyond. They also have implications and potential recommendations for other researchers in the fields of educational leadership, bullying, and bullying prevention in the school setting. Specific recommendations are made for high school principals, teachers, and future researchers interested in understanding further the relationship between leadership style, school culture and bullying behavior within that culture in particular. Finally, the dissertation concludes with a summary of the original problem, the principal features of the employed methodology, and highlights of the most important findings.

Determination of the Null Hypotheses

Of the nine testable hypotheses and corresponding null hypotheses, two of the null hypotheses were rejected by the statistical analysis in this study. The first, Hypothesis 1_0 , stated there will be no relationship between the number of student bullying incidents in a school and the school principal's self-rating in transformational leadership. Statistical analysis revealed a relationship between these variables. The relationship between these variables was negative (p-value = 0.0356) in that leaders who self-rated as less transformational were associated with higher rates of student bullying incidents. In other words, school leaders who rated themselves to be less transformational in their leadership style had higher rates of bullying in their schools.

The second, Hypothesis 6_0 , stated there will be no relationship between the number of bullying incidents in a school and the rater-rating of the school principal in

laissez faire leadership. Statistical analysis revealed a relationship between these variables. The relationship between these variables was negative (*p*-value >.05) in that leaders who were rated by raters as being more laissez faire in their leadership were associated with lower rates of bullying incidents. Figure 1 provides a graphic representation of the rejection of these two null hypotheses.

The other seven null hypotheses were not rejected by the statistical analyses. In the seven remaining hypotheses, no relationship was found between the three high school principal leadership variables of transformational, transactional, and laissez faire leadership style and the variable of bullying incident rates in each principal's school. The leadership variables were expressed as results of the self-survey only, the rater-survey only, and also as an average of self and rater surveys. Throughout each of the analyses, the bullying incident variable was expressed as the raw number of bullying incidents for the 2011-2012 school year for each high school in the study.

Conclusions from the Analysis of the Data

There were issues with the MLQ data worthy of comment. The first issue relates to the sample size in the study which was explained further in the Population and Sample section in Chapter Three of this study. Forty-nine principals were sent the MLQ online leadership-style survey. Nineteen of the 49 completed the MLQ online self-survey. From these 19 principals, there were 22 raters who completed the MLQ rater-survey and thereby evaluated leadership characteristics of their school's principal. When considering the question of whether the data generated by this sample represent the population in such a way as to answer the research question, it is imperative to consider the final sample size and response rate as limitations.

Another issue facing the MLQ data was a lack of variation in principal leadership style. This lack of variation begs the question of whether two principals in the study are sufficiently different enough to be the root cause of or even a powerful factor in affecting the number of bullying incidents at an individual school. In this same light, it is essential to question whether the approximate two fifths of principals who did participate in the MLQ can represent the other three-fifths who did not. The means (corresponding standard deviations) for all ratings were 3.2307 (0.416) for transformational leadership, 2.3646 (0.6155) for transactional leadership, and 0.6183 (0.4603) laissez faire leadership with each individual leader counted as one unit. This raises the question of whether the principals who did not respond would follow a similar distribution of leadership ratings or might they somehow differ. The unknowns regarding the effect of a lack of variation in leadership styles as well as the potential distribution for non-participants should also be considered as limitations in the findings and conclusions.

In the areas of both academic and social achievement, the literature is clear in terms of the importance of the principal and in particular the principal's leadership style in producing specific educational outcomes and goals (Simkins, Charner, & Suss, 2010). In spite of the limitations with aspects of the MLQ data, the findings of this study add to that body of research in the areas of both bullying and school leadership. This study generated certain conclusions about the relationship between school leadership and the occurrence of bullying behavior in school. As stated, there was statistical evidence of an association between the variable of transformational leadership, as measured by MLQ self-survey, and the rate of bullying incidents. Principals who rated themselves as less

transformational were associated with higher rates of bullying incidents in their schools. This relationship supports the idea that transformational leaders are more effective at inspiring positive outcomes. The school leader who is able to impart a shared vision for a school climate in which bullying behavior is not acceptable is thereby able to affect a reduction in the rate of bullying incidents occurring in the school. This suggests a transformational leadership style is effective in facilitating a school climate in which bullying occurs less.

This finding supports previous research in school bullying. A 2011 study commissioned by the National Education Association concluded that an important predictor of teachers' willingness to intervene in bullying situations was their perception of connectedness to the school. In other words, collegial relationships with colleagues and school administrators, positive perceptions of school safety, and an overall sense of belonging within the school community were associated with a greater likelihood of intervening in bullying situations (Bradshaw et al., 2011).

This further explains the association discovered between principals with a strong transformational leadership style and bullying behavior. Transformational leaders exercise idealized influence with followers and the organization's culture, meaning they instill pride in others, display power and confidence, make personal sacrifice, champion new possibilities, consider the ethical or moral consequences of decisions, and discuss the importance of having a collective sense of vision and mission (Bass, 1998). Given that previous research establishes the effect of transformational school leadership as an improved climate and more effective staff performance—factors known to predict increased staff intervention on bullying incidents—then it makes sense to discover that

higher ratings in transformational leadership indeed correlate with lower rates of bullying incidents in the corresponding schools sampled. Previous findings, such as those found in the NEA's report, in conjunction with this study's findings lend credence to the idea that a transformational style of principal leadership predicts a lower prevalence of bullying behavior in the school. Again, the findings of the NEA further strengthen this study's finding:

These findings support the use of school-wide climate enhancing programs that promote close relationships across administrators, teaching staff, parents, and students. Creating a supportive environment within a school can model positive social interactions for students, which may in turn reduce the likelihood of bullying. (Bradshaw et al., 2011, p. 15)

A principal whose leadership style facilitates a positive school climate and feelings of connectedness with one's school community is also associated with lower rates of bullying incidents.

Raising questions about the effect of transformational leadership is the other relationship that bore a statistical association in the study's analysis. There was statistical evidence to indicate an association between principals who were rated as being more laissez faire in their leadership style, as measured by the MLQ rater-survey, and the rate of bullying incidents in their schools. The relationship between these two variables was moderately negative with laissez faire principals associated with lower rates of bullying incidents. As noted in Chapter Four, this moderately negative relationship was significant in the opposite direction of what might be anticipated in theory and in practice.

In this study, laissez faire leadership is defined in terms of an avoidance of responsibilities and the failure to make decisions. Laissez faire leaders are often absent when needed or fail to follow-up on requests. The measurement of this style is based on the practice of passive management-by-exception, in which leaders are unaware of performance problems until brought to their attention (Avolio & Bass, 2004). In light of this description, it is plausible to anticipate laissez faire principals would be associated with schools with higher rates of bullying incidents. This is especially conceivable in the case of the MLQ rater surveys. When others, subordinates in particular, perceive a laissez faire leadership style in practice, they are less likely to work toward school goals and improvements, both academic and behavioral (Gregory et al., 2007). However, in the case of this sample, the opposite proved true.

One explanation for this result points to this study's means of measuring bullying behavior. The OPI data on bullying behavior depends on two factors occurring in the school in addition to the bullying incident itself. First, the bullying behavior incident must be reported to school administration either by a student, parent, or staff member. Second, upon investigation, administration's reaction to the incident must be either an in or out of school suspension. If others perceive the principal to be particularly laissez faire, the assumption may exist that a report will not illicit the appropriate response or the issue will not be taken seriously by those in authority. With laissez faire leadership, school staff may be inclined to handle bullying at the classroom level or perhaps ignore it altogether before reporting bullying incidents to a passive avoidant principal. These factors may explain the negative correlation between laissez faire leadership style and bullying incident rates.

It is not entirely clear why high laissez faire ratings corresponded with low bullying rates; however, in addition to the above explanation, this finding again raises the question of whether or not in this case principal leadership style can be considered a powerful enough factor to affect the rate of bullying in either direction.

Implications of Findings

Implications of the findings from this study are first rooted in the study's original research question. The research question sought to examine the relationship between the leadership styles of high school principals in Montana public high schools with an enrollment greater than 200 students and the number of bullying incidents in each principal's corresponding high school. Essentially, the question addressed whether or not an association existed between these two variables. This question was scrutinized in detail and analyzed statistically through 10 statistically measurable hypotheses.

There was moderate evidence of a relationship between variables for only two of the 10 hypotheses. There was no statistical evidence of a relationship between variables in the other eight hypotheses; therefore the results were not statistically sufficient enough to reject those null hypotheses. Overall from the findings of this study, there was relatively weak or nonexistent evidence pointing to the conclusion (or even the inference) that a high school principal's particular leadership style has a direct effect or association with the rate of bullying incidents in their school.

Researchers have struggled to establish an empirical basis for the degree to which educational leadership matters to student achievement and, relative to this study, one factor of a positive school culture. Like much of the research on the topic spanning the previous two decades, this study has raised more questions about the relationship

between leadership and a school outcome than concrete answers. However, the failure to identify a direct relationship between leadership style and bullying rate does point practitioners and future researchers to look elsewhere for the key to unlocking the problem of bullying behavior in schools.

In a 2007 study, researchers Kruger, Sleegers, and Witziers found only weak direct-effects of school leadership on school culture. It is critical to note, however, their finding that school leaders do have a direct effect on the quality of the school organization, while having more of an indirect impact on the success of the school's culture. Again, this suggests that, while the effect is indirect, there is a residual benefit on school culture from the direct effect school leadership has on school organization. In short, effective school organization (which leadership directly impacts) leads to effective school culture. However, it is interesting, particularly given this dissertation's coverage of transformational leadership theory, to note that these authors did hypothesize that if a transformational leadership variable had been included, the effect of leadership on culture may have been more direct (Kruger et al., 2007).

Application of Results to Practice

There are several applications for the findings of this study on the practice of high school leadership. Principals who rated as more transformational (self-survey) and those who were more laissez faire (rater-survey) were associated with lower rates of bullying incidents. While it makes sense to suggest principals practice transformational leadership in an effort to improve school culture and reduce bullying, it seems dubious to recommend principals also practice laissez faire leadership to the same end as well. The dichotomous nature of these two findings again points to previously raised questions

about the MLQ data. However, based on the findings of previous research in concert with those from this study, it appears the most powerful impact a principal's leadership style will have on the reduction of bullying behavior is the degree to which it affects a positive school culture, the implementation of bullying prevention programs, and the staff's universal willingness to intervene in incidents of bullying.

Whether or not a high school is plagued with a high rate of bullying behavior is directly related to the health of its culture. A school with an unhealthy or negative culture becomes a breeding ground for bullying and other problem behaviors. The leadership style of the principal influences culture. Transformational principal leadership is positively associated with an innovative and effective school climate. Therefore, principals who endeavor to reduce or eliminate bullying behavior in their schools should adopt the practices of transformational leaders. Transformational principals motivate followers to exceed expectations through extra effort and greater productivity (Balyer, 2012). Their leadership tends to function within four broad categories. The first, known as idealized influence, deals with serving the needs of others through empowerment and inspiration toward greater levels of success. The second, inspirational motivation, refers to the leader's ability to articulate a compelling vision of the future, set challenging standards, and state a clear position on controversial issues. Intellectual stimulation refers to the leader's ability to empower and enable followers to understand the problems they face in the current situation and contrast them against the vision and mission for the future. Finally, individualized consideration concerns the extent to which leaders treat followers as individuals and how much of a mentoring or coaching orientation leaders demonstrate in their engagement with followers (Bass, 1998).

The implementation of bullying prevention programs and the fidelity with which they are executed are also affected by principal leadership style. According to Dillon (2010), effectively addressing a bullying problem requires a culture change, a process for which the principal is a primary change agent (Dillon, 2010).

A principal must assess the existing knowledge, skills, and attitude of the staff before selecting a program or resource. Including staff and parents in making this decision is essential for getting the rest of the community to buy into implementing it. One of a principal's most important leadership skills is the ability to reframe problems as opportunities to transform a school for the better. To say that bullying is a challenge is an understatement, but what is more important or essential for school leaders to tackle? What greater contribution can a principal make? (Dillon, 2010, p.23)

Again, the findings of this study echo previous work in the area by framing the leadership necessary to affect bullying behavior as a process of transformation. Unlike a more transactional leadership style, it appears the successful implementation of any program or initiative aimed at addressing bullying in school must focus heavily on the people charged with its execution. The inspirational motivation component of transformational leadership speaks directly to how transformational principals implement bullying prevention by articulating a compelling vision, setting high standards, and, most importantly, establishing a clear and unwavering position on controversial issues.

Research has established the fact that staff members' willingness to intervene when bullying occurs, take a consistent, strong position against the behavior, and encourage antibullying conduct are all related to feelings of connectedness with

colleagues and administrators (Bradshaw et al., 2011). Transformational principals achieve this with staff through idealized influence and individual consideration. By focusing on empowering and inspiring staff toward a shared vision, and by treating staff as individuals rather than a bureaucratic whole, transformational principals create tangible feelings of connectedness among the individuals in their schools. When a school free from bullying is an element of the shared vision and staff feel empowered by a culture characterized by connectedness, the rate of bullying incidents should be low or steadily decline.

Recommendations for Further Research

This study raises several questions that should be answered through continued research on the relationship between school leadership practices and the problem of bullying behavior in school. The first question concerns the means of measurement for both the bullying and leadership variables. Had the difficulty in securing participation from leaders and raters been anticipated, a much larger sample would have been taken originally. Potentially, every high school and high school principal in the state of Montana would have been sampled. A larger sample and better MLQ response rate would have certainly increased the power of the results. It is recommended that any future research in the areas of school leadership and bullying draw from a larger sample of both schools and leaders.

As stated in the study's limitations as well as in the review of literature, bullying behavior is a difficult phenomenon to define and measure exhaustively and with complete accuracy. Many instruments used to assess bullying at school define the behavior in different ways, causing confusion as well as both under and over reporting of the

problem. The measurement used for the bullying variable in this study generated data that was relatively simple to gather and provided a precise quantity of bullying incidents that was bound by both place and time. However, it did feature particular limitations in regards to being a comprehensive measurement of the amount of bullying behavior occurring in each school.

It is recommended that future research on bullying and leadership attempt to gather a more comprehensive measurement of bullying in the school setting. This could be accomplished via an established instrument for measuring bullying such as the Olweus Bullying Questionnaire, which is a student-based survey designed as a pretest prior to the implementation of an established bullying prevention program—the Olweus Bullying Prevention Program. However, measurements such as these have been questioned for their applicability in a broad and unbiased research setting. Because a pretest of this sort is intended to be used with a canned prevention program a school purchases, the reliability and validity of such an instrument is suspect. An unbiased and thorough approach would be to gather bullying data from multiple sources, including administrator, teacher, student, and parent perspectives.

Another question that should be answered through further research is regarding the effect of leadership style not on a specific amount of bullying incidents but on the efficacy or fidelity of a targeted bullying prevention program. In order to answer this question, a large enough sample of schools using the same or similar program would need to be studied in order to determine the actual effect of leadership style on program variables. In terms of how to measure program effectiveness, it is again recommended

future research establish a protocol for measuring bullying behavior from multiple sources in order to generate the most complete bullying data possible.

The tenth hypothesis tested in this study provided a view of the original research question that should also be explored through potential further research. The tenth hypothesis differs from the first nine hypotheses in that the leadership and bullying variables are reversed. The rate of bullying incidents became the independent variable and leadership style became the dependent variable. In this scenario, it was tested whether there was a relationship between the rate of bullying behavior and the principal's leadership style. In other words, the question of whether or not bullying behavior has the power to predict a principal's leadership style, as measured by the MLQ, was tested. In the case of this tenth hypothesis, it was concluded that both the sample size and lack of variability in leadership style across the leaders created limitations in generalizability of results and questions about the effective, predictive power of bullying incident rate for leadership style. However, with a much larger sample, expanded research with these variables could provide stronger and more conclusive evidence as to the existence of a more direct relationship between bullying and school leadership.

The effect and power of school leadership and principal behavior on the problem of bullying is a relatively untapped field of research. Hopefully, this study will raise further questions and open doors for future research. The results of this study will benefit from future research that studies the longitudinal effect of leadership style on bullying rates. New results may emerge once principals receive professional development aimed to increase their understanding of the impact their leadership style has on school culture, bullying prevention programs implemented by the school or on the problem of bullying

behavior itself. In this light, it would be informative to measure leadership style and bullying rates and test their relationship over a series of school years to determine whether a deliberate change in principal leadership behavior produces a change in bullying incident rates. This study provides a one-school-year snapshot of the relationship between these two variables. However, in order to examine and understand more closely the nature of this relationship, it should be tested longitudinally as well.

Summary

A high rate of bullying behavior in a school is a serious problem. Previous research concludes that bullying, especially chronic, not only affects the social and emotional welfare of victims but can also impact their academic achievement in terms of low grades, poor attendance, and high school dropout. The effects of bullying appear to harm the perpetrators of the behavior in ways similar to the victims. The prevalence of bullying in a school is symptomatic of a toxic and unhealthy school climate and culture. Bullying prevention in school can take the form of specific, school-wide, anitbullying programs, school board policy concerning bullying and harassment, state laws prohibiting the behavior, and administrators and staff communicating a universal, firm, clear, and consistent position in response to bullying behavior. This study was used to better understand the relationship between the leadership style of the high school principal and the occurrence of bullying in his or her high school. By illuminating the nature of this relationship, the results of the study may provide high school principals with insight into how to shape their practice in ways that have the potential to reduce the rate of bullying incidents in their schools.

The data on principal leadership style were collected using the Multifactor

Leadership Questionnaire, an instrument containing both a self-survey completed by the principal and a rater-survey completed by others in the organization about the principal.

The MLQ was sent to 49 high school principals in Montana as a link contained in personal e-mails both from Mind Garden (the publisher of the MLQ) and the researcher.

The MLQ rated the participating principals in three distinct styles of leadership—

transformational, transactional, and laissez faire. The analysis of this data was conducted in terms of three leadership independent variables—self-survey ratings, rater-survey ratings, and average ratings of the two surveys. The data on bullying behavior were collected from the Montana Office of Public Instruction from the school discipline report filed by each school in the study at the conclusion of the 2011-2012 school year.

Leadership style data were translated into nine independent variables and the rate of bullying incidents was made the dependent variable. Nine hypothetical relationships were tested, and statistical analyses were made in an effort to determine the relationship between these variables. In a tenth hypothesis, bullying rates were made the independent variable and leadership ratings the dependent variable in an attempt to test the predictive power of bullying rates on leadership style. The results established moderate evidence of a negative relationship between principals' self-rating in transformational leadership and the rate of bullying incidents. Also, moderate evidence was found of a negative relationship between principals' rater-ratings in laissez faire leadership and the rate of bullying incidents. There was no evidence of a relationship between the other leadership variables and the rate of bullying incidents. There was also no evidence of a predictive relationship between the rate of bullying incidents and the principal's leadership style.

This study raises questions to be explored through further research in the field of school leadership and its relationship to bullying in school. The moderate evidence produced by the analyses in this study could be strengthened via additional study in the field. In addition to new knowledge gleaned from the results, this study illuminates important areas of improvement in regards to the methodological approach of future research in school leadership and bullying. The overall recommendations for principals to improve and increase transformational leadership behaviors will only be strengthened and clarified by continued research in this area.

The problem of bullying behavior in the school setting is not only real but also influential across the entire landscape of the school experience. Bullying behavior is only becoming more complicated, complex, and pervasive as communication and interaction among school-age children increases via technology and social media. Keeping the school climate and student relationships safe is absolutely integral to successful student learning and overall educational achievement. The guarantee of this safety is paramount among the responsibilities and obligations of the school principal. It rises to the level of a moral imperative. This research and the knowledge gained thereof, as well as any future research it may inspire, will help to improve the work principals do toward this important mandate.

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Appendix A: Sample Personal E-mail Sent to Principals in the Study.

Greetings,

I am the Dean of Students at Hellgate High School in Missoula and doctoral candidate in Ed. Leadership at the University of Montana. I am studying the relationship between high school principal leadership style and the prevalence of bullying behavior in Montana high schools. I am sampling Montana high schools with an enrollment of 200 or more students, which includes 49 high schools, not a very large sample. The data for leadership style will **hopefully** be your results from the Multi-factor Leadership Questionnaire. The Multifactor Leadership Questionnaire (MLQ) offers researchers and leaders the most validated and efficient measure of Transformational Leadership, as well as a full range of leadership behaviors. I think you will find the results fascinating and illuminating in terms of both understanding and developing your leadership style.

I am also asking that you select four raters within your organization to complete a rater survey about your leadership. These steps are quick and simple and can be accessed through the following link using your email address:

http://www.mindgarden.com/rsvp/11616

I am depending on a high rate of return for these surveys. I truly need each one of the MLQs to be completed.

Please reply to this email or contact me via cell at 406-241-3751 to let me know if you are able and willing to complete the MLQ. I cannot thank you enough for your help

Thanks so much,

Ted Fuller

Appendix B: Sample Follow-Up Personal Email Sent to Principals in the Study.

Hi Everyone, I am sending out another request in the hopes that you will please be so generous as to complete the survey linked below and send it to at least four raters to complete as well. I know how precious your time is. This is data for my dissertation and its completion depends on it. I so appreciate your willingness to participate.

Thank You, Ted Fuller

Greetings,

I am the Dean of Students at Hellgate High School in Missoula and doctoral candidate in Ed. Leadership at the University of Montana. I am studying the relationship between high school principal leadership style and the prevalence of bullying behavior in Montana high schools. I am sampling Montana high schools with an enrollment of 200 or more students, which includes 49 high schools, not a very large sample. The data for leadership style will **hopefully** be your results from the Multi-factor Leadership Questionnaire. The Multifactor Leadership Questionnaire (MLQ) offers researchers and leaders the most validated and efficient measure of Transformational Leadership, as well as a full range of leadership behaviors. I think you will find the results fascinating and illuminating in terms of both understanding and developing your leadership style.

I am also asking that you select four raters within your organization to complete a rater survey about your leadership. These steps are quick and simple and can be accessed through the following link using your email address:

http://www.mindgarden.com/rsvp/11616

I am depending on a high rate of return for these surveys. I truly need each one of the MLQs to be completed.

Please reply to this email or contact me via cell at 406-241-3751 to let me know if you are able and willing to complete the MLQ. I cannot thank you enough for your help

Thanks so much,

Ted Fuller

Appendix C: Sample Follow-Up Individualized Emails Sent to Specific Principals in the Study Directly.

Ηi		
111		,

I am the Dean of Students at Hellgate High School in Missoula and doctoral candidate in Ed. Leadership at the University of Montana. In April I emailed you about the completion of the Multi-Factor Leadership Questionnaire, which contains a survey for yourself and one for others to rate your leadership style. I can see that you sent the rater survey to four others, two of which have completed it.

I am desperately hoping you can take a few minutes to complete the self-rater survey. I think you will find the results interesting, and I am more than happy to share them once my study is complete. In fact, the two rater surveys score you quite high on the five subscales as a transformational leader.

The steps for self rating are quick and simple and can be accessed through the following link using your email address:

http://www.mindgarden.com/rsvp/11616

I am depending on a high rate of return for these surveys. I truly need each one of the MLQs to be completed.

Please reply or contact me via cell at 406-241-3751 to let me know if you are able and willing to complete the MLQ. I cannot thank you enough for your help

Thanks so much,

Ted Fuller

Hi		

Congratulations on another school year drawing to a close. If you are working this summer, I hope it is a rewarding and productive time.

I realize as a fellow administrator you get millions of requests on your time and efforts. I also realize, as a complete stranger and a desperate doctoral student, I rank low on the priority list. I will tell you I am chasing the culmination of a dream of mine and aim to make a difference in the world with the degree I earn. This is also a very cool and completely free opportunity for you to learn how your style as the principal of your high school affects the prevalence of bullying behavior in your school.

So, I am reaching out again (begging and pleading actually) in the hopes that now that students are gone for the summer, you might have a bit more time in your day (15 min max) to complete the leadership style survey (the MLQ) I am using to gather data for my doctoral dissertation at the University of Montana.

Just click on this link, log in with your email address, and follow the three steps below: http://www.mindgarden.com/rsvp/11616

Step One: Complete the "self" survey about your own leadership style.

Step Two: Select between one and four people with whom you work and send them the link to complete the "rater" survey about your leadership style.

Step Three: Smile and feel the glow of having helped a colleague in need summit a major life milestone!!!

Thanks a million!!

Ted Fuller,

Appendix D: Sample Rater Request E-mail.

Happy Summer!!

My name is Ted Fuller and I am the Dean at Hellgate High School in Missoula and a doctoral candidate in Educational Leadership at The University of Montana. I am conducting a research study on the relationship between principal leadership style and the prevalence of bullying behaviors in Montana high schools.

I am hoping now that summer is upon us you are willing and able to take a few minutes to complete the MLQ survey rating your principal's leadership style.

Please know you will be helping me to make a longstanding dream come true. I appreciate it tremendously!!

Best, Ted

Dear Sample Rater,

You have been identified as someone who can provide ratings for developmental purposes for Sample Participant (sample.participant@email.address). There are other raters also completing this survey for Sample Participant. Your ratings will be aggregated with the other ratings, which will provide development feedback to Sample Participant. This aggregation is to assist you in providing direct and honest feedback to Sample Participant since you will not be identified with your ratings. Note that usually higher-level ratings (e.g., supervisor) consist of only one person and so are not aggregated. Note also that the textual input questions will not be edited. The report to Sample Participant will contain exactly what you enter. For purposes of confidentiality, an independent company, Mind Garden, Inc. manages this process.

To complete your rating of Sample Participant, please click or copy into your browser address bar to access the Web page rating form: you can also use http://transform.mindgarden.com/welcome/2/1/SAMPLE_ in most email programs or by a copy and paste into your browser address bar.

For the purposes of this evaluation, you should respond by: As soon as possible!.

All questions about this process should be addressed to Researcher, jamesedwardfuller@gmail.com. If you have technical problems, please contact Mind Garden, Inc.

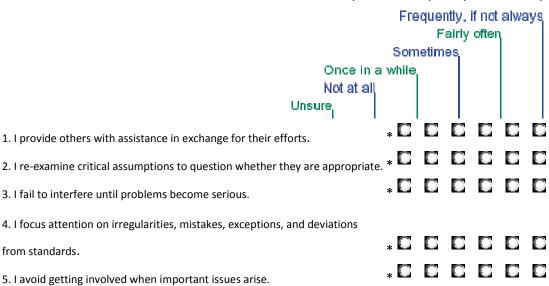
Thank You,

Mind Garden, www.mindgarden.com

Multifactor Leadership Questionnaire

This survey will help you and your raters describe your leadership style. Starting with the first question, judge *how frequently each statement fits you*. If an item is irrelevant, or if you are unsure or do not know the answer, use the "unsure" button. Use the rating scale below:

Unsure - Not at all - Once in awhile - Sometimes - Fairly often - Frequently, if not always



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