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A Quantitative Investigation of Teachers' Responses to Bullying

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A QUANTITATIVE INVESTIGATION OF TEACHERS' RESPONSES TO BULLYING

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Bullying and responses to bullying have received increased attention in recent years (Thompson & Cohen, 2005). Much of this attention has resulted from various school shootings that have occurred, most notably the Columbine High School shootings in 1999. Despite the rarity of school shootings, schools are under considerable pressure to develop and implement anti-bullying policies. The purpose of this study was to examine the influence of individual level and organizational level factors towards teachers' responses to bullying. Specifically, this study was interested in the likelihood of responding to physical, verbal, and relational bullying as well as teachers' typical responses to these types of bullying.

This study used a cross-sectional design and self-administered survey for data collection. The survey methodology for this study was adapted from Dillman's (2007) tailored design, which recognizes that survey research must be designed, or tailored, to meet specific needs and characteristics of the proposed research project. Data were collected from 134 teachers in one public school district in a southern state. Quantitative analysis was used to examine the data. OLS regression was used for analyzing teachers' likelihood of responding to bullying and logistic regression was used to analyze teachers' typical responses.

The findings from this study indicated that teachers' responses to bullying situations were primarily influenced by the perceived seriousness of bullying episodes. Perceived seriousness of bullying situations was statistically significant for all three OLS regression models. In addition, the perceived seriousness of bullying was statistically significant when analyzing teachers' typical least serious and most serious responses to physical bullying that involved hitting, kicking, pushing, or shoving. Future research should continue to explore bullying and teachers' responses to bullying. Teachers' perceptions of bullying and responses to bullying are vital for improving prevention and intervention strategies.

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CHAPTER I

INTRODUCTION

During the latter part of the twentieth century, and especially since the school shootings at Columbine High School in 1999, national and international concerns significantly increased regarding the harmful effects of bullying (Thompson & Cohen, 2005). Once a relatively neglected area of research, it now receives the attention of scholars, writers, the media, researchers, counselors, and theoreticians in a multitude of disciplines that include: psychology, biology, sociology, anthropology, education, history, and criminology (Rigby, 2002). Consequently, the social and political climate enveloping bullying has placed considerable pressure on schools, and ultimately teachers, to effectively respond to bullying.

School safety has become a national concern in recent years as evidenced by the adoption of measures to increase incarceration and punishment for school crimes (Van Patten & Siegrist, 2000). Survey results for seventy-eight elementary, middle, and high school teachers revealed that 95% felt violence in society had increased and 84% felt violence or civil disobedience had increased in their respective schools (Stetson, Stetson, & Kelly, 1998). Furthermore, 71% of respondents stated an increase in violence in their schools despite having some type of conflict management or conflict resolution program in place. The real or perceived threat of violence has altered teaching, learning, and administrative practices within the school setting (Elliott, Hamburg, & Williams, 1998). Rising concerns for school safety have led to a multitude of prevention and intervention strategies that have been implemented in schools; many of these strategies have focused on bullying.

Research studies concerning bullying in schools have been conducted in numerous countries, including Norway, Australia, Ireland, Canada, England, Finland, Germany, Malta, and the United States, which indicates that bullying behavior is a significant problem throughout the world and is not confined to any geographical region or cultural group (Dake, Price, & Telljohann, 2003; Dulmus, Theriot, Sowers, & Blackburn, 2004; Liepe-Levinson & Levinson, 2005). These studies recognize prevalence rates of bullying behavior among schoolchildren between 4% and 50% and rates of bullying victimization between 11% and 50% (Dake et al). From these studies, the prevalence estimate for bullying behavior in the U.S. was 14%, while the estimate for victimization was 19%.

Olweus' (1993) original studies were conducted in Norway and Sweden. Data were collected from approximately 130,000 students ages 8 to 16 from 715 schools in Norway; roughly one fourth of the entire student population. In Sweden, data were obtained from approximately 17,000 students in the same age range. Results of these studies revealed that 15% of students in primary and secondary schools, or one out of seven, were involved in bullying. Almost 9% were identified as victims of bullying and 7% were identified as bullies; 1.6% was identified as both bully and victim (Olweus, 1993).

In the U.S., bullying is a pervasive problem that affects approximately one-fourth of students in school (Liepe-Levinson & Levinson, 2005; Seals & Young, 2003; Swearer & Doll, 2001). Smokowski and Kopasz (2005) report one in three students is affected by bullying. Indeed, humiliation, taunting, teasing, threats, social ostracism and similar school experiences are reported as occurring with much regularity, with as many as 40%

to 80% of students experiencing such behaviors; although, significantly fewer are subjected to repeated and severe abuse (Juvonen & Graham, 2001).

Some teachers believe the additional focus on bullying is nothing more than a politically placed chore meant to advance some bureaucratic agenda (Rigby, 2002). Families, communities, and schools have traditionally been the three social institutions responsible for the development of youth into productive and successful members of society (Stetson et al., 1998). In recent years, schools have had to compensate for the deterioration of these other institutions (Elliott, Hamburg, et al., 1998; Elliott, Williams, & Hamburg, 1998; Stetson et al., 1998). Unfortunately, this shift in responsibilities has impacted schools' educational focus away from the standard curriculum. Public education has now expanded to include responsibilities in public health, public safety, morality, and addressing social and psychological problems related to youth development (Elliott, Williams, et al., 1998). In addition, teachers have become progressively more responsible for teaching an economically and ethnically diverse population, including students of teenage parents, over-stressed parents, and parents who lack parenting skills (Stephens, 1998).

Furthermore, many teachers believe that dealing with a few "trouble students" is an overwhelming task and sometimes avoid confronting students about bullying (Tomal, 1998). Thus, the affective needs of students often are secondary as teachers focus primarily on the development of cognitive skills. On the other hand, teachers have recognized that students' emotional, psychological, and physical health are not only important, but may be the foundation for truly effective learning as they are intertwined with cognitive processes (Siris & Osterman, 2004).

Teachers often are divided about how to respond to bullying behavior, as views differ according to the frequency and severity with which bullying occurs, as well as whose responsibility it is to respond (Rigby, 2002). Of central concern are teachers' attitudes and perceptions toward bullying behavior, which will ultimately determine when and how teachers respond (Dake et al., 2003; Olweus, 1993; Rigby). The reluctance of children to report bullying episodes to teachers further emphasizes the necessity for teachers to identify and respond to bullying (Olweus, 1993; Smokowski & Kopasz, 2005).

The Present Study

The unit of analysis for this study was teachers. This study examined the influence of individual level and organizational level factors towards teachers' responses to bullying. Individual level factors included gender, the number of years teachers have been teaching, grade levels, and the perceived seriousness of incidents. Organizational level factors included school policy, training, and support. Teachers from twenty schools in a small southern city, within the same school district, were invited to participate in this study.

Using quantitative methodology, this study produced useful knowledge in an important area of interest and generated a better understanding of teachers' responses to bullying. Previous research has focused more on the causes of bullying behavior and strategies for the reduction and prevention of bullying. Issues related to teachers' perceptions and responses to bullying have largely been ignored. As the burden of prevention and intervention continues to drift more towards teachers, it is vital to our understanding to gain a sense of how teachers respond to bullying in school.

Chapter II presents a review of the literature. The literature review is divided into two sections: bullying and teachers' responses to bullying. In the first section, a historical overview of bullying is provided, followed by a working definition of bullying for this study. An examination of bullying behavior and limitations for research about school bullying also are addressed. The second section discusses teachers' professional roles, conceptualizations about bullying, and responses to bullying. Included in this section is a discussion about the organizational factors under investigation.

The next chapter provides a discussion of the research methods that are used for this study and presents the research questions under investigation. Chapter III also provides a detailed description of research design, sampling strategy, methods of data collection and analysis and information about reliability, validity, human participant protection, and strengths and weaknesses of the research design. Chapter IV presents the analyses and results. Included in this chapter is a discussion of the descriptive statistics and regression analysis. Both OLS regression and logistic regression were used for analysis purposes. Finally, Chapter V includes a discussion of the limitations and strengths of the current study, the research findings, suggestions for future research, and final conclusions.

CHAPTER II

LITERATURE REVIEW

Bullying

The phenomenon of bullying is very old. Patterns of exploitation of the weak by those who are stronger can be seen throughout recorded history (Rigby, 2002). Children frequently and systematically bullied by others also have been described in literary works and many adults maintain memories of their personal experiences with bullying from their own school days (Olweus, 1993). Despite the familiarity that so many people have with bullying and its potential consequences, it was not systematically studied until relatively recently. Even then, initial attempts to study bullying focused on peer harassment or victimization and were largely confined to Scandinavia.

This chapter first presents information pertaining to a historical overview of bullying, a definition for bullying to be used in the current study, bullying in the school environment, and types of bullying. Next, the chapter discusses teachers' responses to bullying and individual and organizational level factors associated with teachers' responses to bullying, such as: gender, teaching experience, grade level, perceived seriousness, policy, training and support.

Historical Overview of Bullying Research

A strong societal interest with the phenomenon of peer harassment or victimization existed in Sweden in the late 1960s and early 1970s under the designation "mobbing" or "mobbning" (Olweus, 2001). Mobbing, a term borrowed from a Swedish book about aggression, often is used in Scandinavia for bullying (Olweus, 1993). A larger concern in Scandinavia was the absence of any empirical data related to the strong

societal concerns people had about peer harassment or victimization. As a result, Olweus initiated the first systematic study of peer harassment, or bullying, in Sweden, during the 1970s (Olweus, 2001). The primary research objective was to gain insight about the nature and prevalence of bullying and to answer some of the key questions related to bullying. Initial results were subsequently published in a Swedish book in 1973; an expanded version appeared in the U.S. in 1978 under the title *Aggression in Schools: Bullies and Whipping Boys*.

Olweus (2001) considered it important to focus on situations where an individual was exposed to systematic forms of aggression over long periods of time, whether from another individual or a group. Bullying quickly became a topic that both fascinated and challenged empirical researchers and theoreticians in a multitude of disciplines and simultaneously offered hope for many individuals who had suffered through bullying experiences (Rigby, 2002). In the late 1980s and early 1990s bullying received increased public and research attention in other countries such as Japan, England, The Netherlands, Canada, Australia, and the U.S. (Olweus, 1993).

In the U.S., bullying was initially categorized as a subset of aggression (Griffin & Gross, 2004). Though bullying and aggression are similar concepts, each has a distinct construct that requires different approaches for measurement. For instance, some researchers have included any and all aggressive behaviors within their measurement of bullying while others specify that behaviors must be carried out repeatedly and over time to be classified as bullying (Griffin & Gross). Further, bullying differs from aggression on three dimensions: bullying is more systematic and self-initiated as students purposefully select targets they can control; students who bully tend to repeatedly

victimize their targets; and, bullying often includes a variety of hurtful actions, such as physical attacks, verbal assaults, and social exclusion (Espelage & Asidao, 2001).

Bullying became a viable research topic due to the eventual spread of Olweus' innovative work and because of the media's increased focus toward and usage of the term bullying (Thompson & Cohen, 2005). The majority of this attention stemmed from the media's coverage of the school shootings at Columbine High School in 1999 (Ralston, 2005; Thomson & Cohen). After the school shootings at Columbine High School, two additional shootings occurred before the year ended, one in Conyers, Georgia and the other in Fort Gibson, Oklahoma (A Time line of Recent Worldwide School Shootings, 2008). These episodes increased the public's awareness of bullying and garnered researchers' attention that bullying may serve as a precursor to these violent events (Dake et al., 2003; Elliott, Hamburg, & Williams, 1998; Seals & Young, 2003; Swearer & Doll, 2001). Despite the increased attention for bullying and its potential consequences, philosophical differences about what constitutes bullying and how best to respond to bullying continue to exist. A definition for bullying is provided in the following section.

Definition of Bullying

The most comprehensive and extensively used definition of bullying is provided by Dan Olweus; very few studies exist that do not cite his original work (Dake et al., 2003; Dulmus et al., 2004). This study used the definition of bullying developed by Olweus (1993), which states, "a student is being bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other students" (Olweus, 1993, p. 9). Negative actions are further defined as "when someone intentionally inflicts, or attempts to inflict, injury or discomfort upon another" (p. 9).

Negative actions can be verbal (including threatening, taunting, teasing, or name-calling) or physical (such as hitting, kicking, pushing, shoving, or pinching). Negative actions also may occur without verbal or physical interaction, such as making faces or gestures, intentionally excluding someone from a group, spreading rumors, or refusing to comply with the wishes of another. Different types of bullying are discussed in more detail in a later section.

The definition emphasizes repeated interactions that are carried out over time. According to Olweus (1993), it is reasonable to assume that any time students are forced together within social environments where they have little choice over with whom they interact, tendencies to bully may arise. Further, some conflict among students is natural and expected. Students may come to school in an irritable mood because of a confrontation at home, or they might be tired or hungry. Students also may have a disagreement with one another that leads to a more serious altercation, though still not necessarily a bullying episode. The focus toward repeated interactions carried out over time is meant to exclude random interactions or isolated incidents that occur in a nonsystematic way. Random and isolated incidents are seen as somewhat natural, with less severe consequences for those involved. Thus, bullying is typically defined as occurring repeatedly and over time.

Additionally, it is not considered bullying unless the targeted individual has difficulty defending him or herself against the bullying behavior. The overall intent is to focus on systematic victimization among participants with an imbalance of power or strength. Depending on the type of bullying that occurs strength may refer to physical, emotional, or mental strength. Differences in emotional or mental strength may be more

difficult to identify than differences in physical strength. Regardless, two individuals of approximately the same physical, psychological or social strength that socially interact in an aggressive manner are not considered to be engaged in bullying behavior. There must be an imbalance in power or strength between the participants involved for the episode to be considered bullying. The next section addresses bullying in the school environment.

Bullying in the School Environment

An important feature of bullying is its "essential public nature" (Jeffrey, Miller, & Linn, 2001, p. 145). Those who bully tend to do so in front of an audience of their peers. Therefore, bullying is "best conceptualized as an interaction between the individual and his or her peer group, school, family, and community" (Swearer & Doll, 2001, p. 19). The seminal definition of bullying provided by Olweus also describes a behavioral interaction rather than an individual or a behavior. Thus, bullying interactions occur when individual characteristics of the child who is bullying are combined with the actions of their peers (including those of the individual who is being bullied), the reactions of teachers and other adults at school, the physical characteristics of the school grounds, family factors, cultural characteristics, and community factors (Swearer & Doll). Therefore, propensities for bullying are the result of continued interactions between individuals and their immediate environment.

Bullying has been commonly misidentified as occurring primarily in larger, city schools (Olweus, 1993). Results from Norway and Sweden show this to be invalid. Additionally, one study (Dulmus et al., 2004) done in a rural school setting reported that just over 82% of students experienced some form of bullying at least once in the three months prior to the study. Students who were "called mean names, made fun of, or

teased" was the most common type of bullying experienced by students and being "threatened or forced to do things" and "being called racist names" were the least common types of bullying experienced. As many as 24.1% of students responded they had been "threatened or forced to do things" and 26.1% reported being "called names based on race or color" (Dulmus et al., 2004). Additional research has shown that the size of the class or the school appears to be of little importance for the amount of bullying found in the class or school (Dake et al., 2003; Olweus, 1993).

There is a natural hierarchy of status in schools, commonly referred to as popularity, which exists among students. The top 15% of students can be classified as "very popular," the next 45% as "accepted," and another 20% as "average" or "ambiguous" (Thompson & Cohen, 2005, p. 17). As a result, approximately 80% of children are not at serious risk of being bullied. On the other hand, the remaining 20% of students who are considered in the bottom of the social hierarchy are at serious risk for bullying (Thompson & Cohen, 2005). Younger students also are at different stages of social development and may not yet understand that bullying is unacceptable behavior. However, recognition of bullying as unacceptable behavior is not always enough to deter it from happening. In addition, older students have generally had more opportunities to acquire the necessary skills and assertiveness to either respond more effectively to bullying or to cope with being subjected to such behavior (Smith, Shu, & Madsen, 2001). Different types of bullying are discussed below.

Types of Bullying

Olweus' (1993) research initially distinguished between direct and indirect bullying. Direct bullying involves relatively open attacks on the target and may include

words, gestures, facial expressions, or physical contact, such as hitting, kicking, pushing, shoving, and pinching. Indirect bullying is more covert and less visible, generally achieved through social isolation or intentional exclusion from a peer group. This can be accomplished through different methods and will differ according to age and development (Crick, Nelson, Morales, Cullerton-Sen, Casas, & Hickman, 2001).

For example, in early childhood, this might be accomplished by one individual simply telling another that they do not want to play together anymore. In middle childhood and adolescence, students may not invite others to join in some activity or may ignore an individual while paying excessive attention to another. The distinction between direct and indirect bullying has been further divided into three categories: physical bullying; verbal bullying; and relational bullying, which are discussed in the following sections (Liepe-Levinson & Levinson, 2005; Olweus, 1993; Ralston, 2005; Smokowski & Kopasz, 2005).

Physical Bullying

Physical bullying refers to hitting, pushing, shoving, slapping, kicking, tripping, and other such bodily attacks, as well as damaging another's property (Howard, Horne, & Joliff, 2001; Liepe-Levinson & Levinson, 2005; Ralston, 2005; Smokowski & Kopasz, 2005). Physical bullying is described as "action-oriented" and often uses direct bullying tactics (Smokowski & Kopasz). Until recently, the majority of U.S. research about bullying has been conducted as a subset of aggression and has focused primarily on physical aggression (Griffin & Gross, 2004). Aggression and bullying contain conceptual similarities, but their comparison largely depends on how each has been measured within individual research studies.

Due to the relatively open nature of the attacks, physical bullying is considered the most visible and least sophisticated among the various types of bullying (Liepe-Levinson & Levinson, 2005; Smokowski & Kopasz, 2005). Less than one-third of all incidents reported by children involve physical bullying (Liepe-Levinson & Levinson). Those who engage in physical bullying may become more aggressive over time and continue to manifest bullying in adulthood (Dake et al., 2003; Smokowski & Kopasz, 2005). In addition, students who are targeted for physical bullying are generally targeted for verbal and relational bullying as well (Olweus, 1993). Research also shows that physical bullying is used more in lower grades (i.e., primary school) among younger students (Olweus, 1993).

Verbal Bullying

Verbal bullying is the most common form of bullying according to student reports in one study, accounting for nearly 70% of all reported incidents (Liepe-Levinson & Levinson, 2005). Verbal bullying includes teasing, taunting, name-calling, racial slurs, or any instance where words are used to hurt or humiliate another. Due to the ease and quickness with which verbal bullying occurs, this type of behavior often goes undetected, making such interactions more difficult to respond to for teachers (Smokowski & Kopasz, 2005). Verbal bullying often is a precursor to physical and relational bullying (Liepe-Levinson & Levinson, 2005).

Relational Bullying

Relational bullying includes such acts as ignoring individuals, social isolation, intentional exclusion from peer groups, gossiping, and spreading rumors (Liepe-Levinson & Levinson, 2005; Ralston, 2005; Smokowski & Kopasz, 2005). Relational bullying also

includes aggressive gestures, such as staring, rolling one's eyes, sighing, frowning, sneering, and other hostile body language (Liepe-Levinson & Levinson). It is most powerful and prevalent at the onset of adolescence, when children are exploring their identities and expanding their social networks, also making it very difficult to identify.

Verbal and relational bullying are quite common and are relatively unnoticed by teachers as students report these behaviors occurring more frequently than physical bullying (Griffin & Gross, 2004; Hazler, Miller, Carney, & Green, 2001). Oddly enough, physical bullying continues to attract more attention in the school environment. This is despite the widespread attention given to longstanding emotional and social forms of bullying as precursors to school shootings and suicides. This is most likely due to the visible nature of physical bullying and its relative ease of identification.

Summary

Definitive statements about the types and frequency of bullying occurring in our nation's schools are problematic for several reasons. Primarily, the focus has been on physical aggression, with few studies focusing on bullying specifically (Espelage & Asidao, 2001). However, bullying may not involve any type of physical or aggressive behavior at all and not all acts of physical aggression would qualify as bullying by the definition adopted for this study. As in the case of verbal or relational bullying, the behavior can be very subtle and may not involve a direct encounter between bully and victim. Furthermore, some researchers define bullying in behavioral terms by either counting the frequencies with which targeted behaviors occur or by attempting to determine the conditions maintaining bullying behavior (Griffin & Gross, 2004).

Additionally, most bullying literature comes from international studies where social and cultural differences make the applicability of findings challenging (Dake et al., 2003). These studies have been conducted in Norway, Sweden, Britain, Spain, the Netherlands, Australia, Canada, and Japan. There are several reasons for viewing the results from these studies with caution (Stein, 2001). First, many of the above-mentioned countries have more homogenous populations than the U.S., and any attempt to generalize their findings to our nation is problematic. Second, the countries mentioned have much less overt, public violence than the U.S. This may impact the meaning and types of bullying that are reported, which would greatly eliminate any viable comparison sample or context. Third, the strategies developed and implemented in other countries for the prevention and intervention of bullying have generally relied on the existence of a nationalized curriculum for elementary and secondary schools, thus allowing for a coordinated, nationwide effort. The U.S. curriculum is generally not coordinated state-by-state, and seldom is coordinated building-by-building or even classroom-by-classroom. Finally, much of the research about bullying thus far has focused on younger children and adolescents who bully or have been bullied and has not been obtained from teachers' perspectives (Espelage & Asidao, 2001). It is difficult to obtain reliable or valid data from young children as it is doubtful that most students possess the requisite insight or wisdom to report about complex dynamics of social interactions (Griffin & Gross, 2004; Rigby, 2002). Though children's reports are able to provide some useful information, relying on their ability to report or interpret experiences in an abstract context will be somewhat difficult (Griffin& Gross).

The first portion of the literature review described the concept bullying. Included in this discussion is a historical overview of bullying research, a definition of bullying, bullying in the school environment, and various types of bullying. The remaining sections in this chapter discuss teachers' responses to bullying, and individual and organizational level factors associated with teachers' responses to bullying.

Teachers' Responses to Bullying

Craig, Henderson, and Murphy (2000) surveyed 116 prospective teachers in Canada to explore why some teachers actively respond to bullying and why some do not. Findings suggested that teachers were more likely to respond to bullying when they observed it happening and less likely to respond when it was reported to them. This is especially important considering that teachers often do not observe bullying firsthand. Bullies often target their victims in public but away from adults, which makes it difficult for teachers to respond (Liepe-Levinson & Levinson, 2005). An exception to this is when teachers have indicated in some manner that bullying is acceptable, perhaps by not responding when it has occurred (Jeffrey et al., 2001).

Olweus' (1993) study revealed that approximately 40% of bullied students in the primary grades and almost 60% in the secondary/junior high school grades reported that teachers tried to intervene only "once in a while" or "almost never." Furthermore, about 65% of bullied students in primary school and 85% in secondary/junior high schools reported that the class teacher had not talked with them about bullying. Nearly the same results were obtained for students who bully others. A separate study revealed more non-bullied students than bullied students thought that teachers never tried to stop bullying (Dulmus et al., 2004). Overall, about 45% of students surveyed in this study thought that

students did little or nothing to stop bullying at school. Additional research suggests that teachers differ about what types of behaviors call for their response and subsequently the type of response that should be given (O'Brien, n.d.). When teachers do not respond to bullying, students gain the impression that bullying is an acceptable form of interaction (Olweus, 1993).

Factors Associated with Teachers' Responses to Bullying

A number of both individual level and organizational level factors have been shown to correlate with teachers' responses to bullying. Individual level factors include "gender," "teaching experience," "grade level," and "perceived seriousness." Organizational level factors include "policy," "training," and "support." Each of these factors is discussed below.

Gender

Rodriguez (2002) surveyed twenty certified and licensed teachers in two elementary schools in New York State. The purpose of the study was to explore the differences in disciplinary approaches of male and female teachers toward male and female elementary school students. Teachers participating in the survey were given eight behavioral scenarios ranging from least problematic to most problematic that were listed in random order. Response categories ranged from least assertive disciplinary action to most assertive disciplinary action and these also were listed in random order.

Results from this study show that male teachers were more likely to select a more aggressive disciplinary approach toward male students than female students. Female teachers were slightly more consistent with their responses for both male and female students. Although these findings indicate some difference in disciplinary approaches

toward male and female students based on gender, additional research is needed. Only two of the eight behavioral scenarios included bullying behaviors as this study was interested only in disciplinary approaches, not responses to bullying. The current study included measures to explore the relationship between gender and bullying more specifically.

Professional Experience

Professional experience refers to the number of years that individuals have been teaching. O'Brien (n.d.) surveyed 62 teachers and administrators in a city middle school to examine factors that contributed to inconsistent teacher intervention in student hallway misconduct. Twenty-four teachers were included in the sample and were classified as beginning, experienced, or veteran teachers. Beginning teachers were those who had taught one to four years, experienced teachers had taught five to ten years, and veteran teachers had taught longer than ten years.

Beginning, experienced, and veteran teachers reported engaging in different amounts of intervention. Veteran teachers reported higher levels of intervention than beginning or experienced teachers. However, veteran teachers may choose not to respond to some bullying situations, which may indicate that veteran teachers do not respond in the same manner as they report. For instance, veteran teachers reported that some student misconduct is expected. On the other hand, veteran teachers may have a better understanding of the school environment and could be choosing not to intervene for other reasons. According to Dake et al. (2003), teachers with the greatest length of service express the most negative attitudes towards victims of bullying. This study is interested in exploring the relationship between gender and teachers' responses to

bullying in the classroom and is interested in the number of consecutive years an individual has been teaching.

Grade Level

Grade level refers to the grade(s) within the school that teachers instruct. Research suggests that teachers may respond differently to bullying depending on their exposure to such behaviors, which may be based on what grades they teach (Craig et al., 2000). Different types of bullying are more or less prevalent depending on grade level or age of students. Therefore, teachers who teach particular grade levels may be exposed to different types of bullying more or less often than other teachers. Teachers who dealt with younger students were more exposed to bullying than those who taught older students and higher grade levels as research indicates that bullying is more prevalent among younger students (Smith et al., 2001).

Different types of bullying occur at different grades. Physical bullying occurs more at the elementary level and verbal and relational occur more frequently in middle and high schools (Olweus, 1993; Seals & Young, 2003). Teachers also may consider student behavior differently depending on what grade they teach. For instance, elementary school teachers realize that their students are at or near the beginning of the socialization process and therefore may consider some physical bullying as resulting from frustrations of the developmental process. Thus, some teachers may respond differently than others. In addition, middle school and high school teachers may consider student development differently from one another and may be reluctant to respond to bullying episodes. Some middle school and high school teachers may consider students' verbal taunts at others as harmless playing and also may hesitate from forcing students to

include those who are being left out. This study examined this relationship further as elementary, middle, and high school teachers were included in the sample population and the survey solicited information about physical, verbal, and relational bullying.

Perceived Seriousness of Bullying

Several research studies have examined the perceived seriousness of bullying and its relationship with teachers' responses (Hazler et al., 2001; O'Brien, n.d.; Yoon, 2004). Hazler et al. presented twenty-one vignettes or scenarios to 209 teachers and 42 counselors. The scenarios described different combinations of situational characteristics and participants were asked to judge the severity of each scenario. Participants identified physical threat or abuse as more severe than verbal or relational abuse. Additional studies revealed that the majority of teachers recognized bullying occurs in multiple forms, but considered physical bullying as the most significant when compared to verbal and relational bullying and reported they were more likely to respond to physical bullying (Dake et al., 2003; Glover, Gough, Johnson, & Cartwright, 2000).

In two additional studies, teachers identified the seriousness of bullying situations, or lack of seriousness, as a reason for not always responding to student misconduct (O'Brien, n.d.; Yoon, 2004). Thus, perceived seriousness of bullying was found to be a significant factor for the likelihood of bullying intervention. Many teachers may not know the extent of verbal and relational types of bullying and the possible damages they cause victims (Howard et al., 2001). The current study explored this relationship further by asking teachers specifically about behavior statements that correspond to various types of bullying. Additionally, the current study asked respondents how serious they considered each of these behavioral statements.

Policy

More and more schools have identified that bullying can be reduced through policy. Implementation of policy establishes a systematic approach. However, a systematic approach requires that everyone in a school setting be involved and working together within a well-coordinated plan (Rigby). Thus, three key ingredients are necessary for effective, systematic reduction of bullying in schools: schools must have an anti-bullying policy; school personnel must enforce the anti-bullying policy consistently; and, teachers must be involved in the creation and continued development of the anti-bullying policy.

First, anti-bullying policies are necessary for the reduction and prevention of bullying in schools (Peterson & Skiba, 2001). Effective bullying prevention programs rely on a number of components to reduce and prevent bullying problems, including improved supervision, establishing classroom rules against bullying, providing positive and negative consequences for following and violating rules, and by having serious talks with those who bully and those who are victimized. Adoption and implementation of an anti-bullying policy will ensure that bullying is a school priority and will provide evidence that schools are concerned about the well-being of their students (Dake et al., 2003; Olweus, 1993). Ultimately, bullying prevention programs are designed to send a message that bullying will not be accepted in school.

Second, teachers generally favor consistency in responding to students and some do not respond because policies are not implemented consistently throughout the school (O'Brien, n.d.). According to Olweus (1993), the "attitudes, routines, and behaviors of the school personnel, particularly those of the teachers, are decisive factors in preventing

and controlling bullying activities" (p. 46). Considering also that many students prefer not to get involved in bullying episodes they witness for fear of becoming the new target, it is reasonable to assume that direct adult involvement is a requirement for any policy. Not only is adult involvement necessary, but consistent involvement from teachers both individually and collectively is necessary. Thus, individual teachers must be consistent when responding to bullying behavior and all teachers within a school must consistently respond to bullying behavior.

Third, teachers must be involved in the creation, development, implementation, and evaluation of anti-bullying policies for the policies to be effective in reducing and preventing bullying in schools (Glover et al., 2000; O'Brien, n.d.; Swearer & Doll, 2001). Schools are under considerable pressure to implement anti-bullying policies and teachers consequently face intense pressure to support whatever policies are adopted by schools (Rigby, 2002). Teachers do not always agree with or support the policy that has been forced upon them, which may influence their responses to bullying. The current study offered a unique perspective for this relationship as the targeted school system was in the process of implementing an anti-bullying policy.

Training

Training refers to the preparation that teachers receive so that they may fulfill the multitude of responsibilities associated with their professional duties. Teachers generally receive both pre-professional (pre-service) and professional (in-service) preparation (Joyce & Showers, 1980; Morey, Bezuk, & Chiero, 1997). Pre-service training refers to any type of preparation that individuals receive prior to officially beginning their professional careers. This may include obtaining a university or college degree in

education, student teaching, or substitute teaching. The diversity of pre-service training options is due to the variety in licensing regulations and procedures for issuing teacher credentials among all fifty states (Morey et al.). In-service training refers to the process of teachers acquiring new skills and strategies while on the job (Joyce & Showers). Teachers may be presented these new skills and strategies in staff meetings, from interdepartmental memos, or from developmental seminars. Thus, the form and intensity of in-service training depends on individual schools.

Rigby and Keogh (as cited in Rigby, 2002), reported that approximately 26% of 95 teachers surveyed felt they needed more assistance to handle bullies. Approximately 32% reported feeling personally intimidated by bullies. Furthermore, 89% of the teachers felt that teachers needed training to deal with bullying. These issues are particularly significant given that success of school-based programming is more dependent on involvement and implementation from school personnel than it is specific content (Hurst, 2005).

The level of pre-service and in-service teacher preparation for responding to bullying behavior is largely unknown and requires further investigation (Dake et al., 2003). It is necessary to gain teachers' perspectives about pre-service and in-service training efforts considering their role within the development of young people and the expectations placed upon them from school administrators, parents, students, and politicians. Research confirms that although teachers feel a responsibility to prevent bullying in classrooms, they often do not feel confident in their abilities to effectively respond (Dake et al.). In fact, teachers are generally unsure of how best to respond to bullying and feel as though they would make conditions worse for students if situations

are not handled appropriately (Rigby, 2002). Thus, adequate pre-service and in-service training for school teachers is essential for reducing bullying in schools and also for producing a quality learning environment.

Support

The presence of support is necessary for teachers considering the many challenges they face in the current realm of public education (Yoon, 2003). Teachers are typically isolated from other teachers and professionals at school, making support even more necessary. Limited research has been done concerning teacher support when responding to bullying. One study suggested that schools have less problems with bullying when administrators are actively involved (Cavanagh, 2004). Thus, teachers' perceptions of administrative support have been identified as an important organizational component within schools (Yoon, 2003).

Yoon (2003) surveyed 106 elementary school teachers in two separate school districts in a metropolitan area in the Midwest. Teachers identified four different types of support either desired from administrative personnel or that they have found to be helpful in prior situations: emotional support, teamwork, behavioral solutions/direct involvement, and parental involvement. The most important type of administrative support desired was direct involvement in behavioral solutions or with discipline (Yoon, 2003). Thirty-seven percent of respondents identified direct involvement as the most important support desired by teachers. Overall, 60% of the 106 teachers surveyed preferred that administrators be directly involved in student disciplines. Direct involvement was followed by emotional support at 22.8%, teamwork at 14.2%, and parental involvement at 12.2%. In addition, 7.7% of the responses specify that administrators provide little to

no support, which suggests that 92.3% of respondents did receive some type of support within their schools. The current study examined whether teachers desired support from other individuals as well as administrators. For example, teachers may desire support from other teachers, the school board, students, and parents.

Summary and Conclusion

Given their daily interactions with students, teachers are an obvious choice for responding to bullying behavior; yet, many fail to actively respond in a way to decrease bullying in their school (Howard et al., 2001). Consequently, students tend to believe that teachers are either unaware of the bullying that occurs in schools or believe that teachers are unconcerned. Teachers differ in their views about what types of bullying require responses (Rigby, 2002). For some teachers, bullying is a concern only when someone is seriously harmed physically, while other teachers are more sensitive to verbal and relational bullying. Influencing this perspective and approach to responding is the likelihood that many teachers may not know the extent of verbal and relational types of bullying and the possible damages they cause individuals (Howard et al).

Teachers may find it difficult to identify a bullying situation, assess the situation, decide the manner in which the offense should be handled, and implement the appropriate form of discipline successfully (Rodriguez, 2002). However, schools, and ultimately teachers, may be able to overcome these obstacles through implementation and consistent application of policy, training, and support. The purpose of this research was to examine the influence of individual level and organizational level factors towards teachers' responses to bullying.

Research Question and Hypotheses

After review of the literature presented in this chapter, it was clear that the influence of individual level and organizational level factors towards teachers' responses to bullying needed further examination. Research has been done about bullying and bully victimization. However, relatively little research has focused on the role of teachers and their perceptions. Teachers' perceptions are vital to our understanding of such a complex phenomenon. The broad research question under investigation was: How do individual and organizational level factors influence teachers' responses to bullying?

The researcher was interested in the influence of both individual level variables and organizational level variables. There were seven independent variables and two dependent variables included in the study, which are discussed in more detail in the methods section. These variables corresponded to the following hypothesis statements that were analyzed for this study:

H_a (1): Male teachers are more likely to respond to bullying than female teachers.

H_a (2): Male teachers are more likely to select a more punitive response than female teachers.

H_a (3): Veteran teachers are more likely to respond to bullying than beginning or experienced teachers.

H_a (4): Veteran teachers are more likely to select a more punitive response than beginning or experienced teachers.

H_a (5): Teachers who teach lower grade levels are more likely to respond to bullying than teachers who teach higher grade levels.

H_a (6): Teachers who teach lower grade levels are more likely to select a more punitive response than teachers who teach higher grade levels.

H_a (7): Teachers who perceive bullying to be more serious are more likely to respond.

H_a (8): Teachers who perceive bullying to be more serious are more likely to select a more punitive response than teachers who perceive bullying to be less serious.

H_a (9): Teachers are more likely to respond to bullying if there is a policy.

H_a (10): Teachers are more likely to select a more punitive response if there is a policy.

H_a (11): Teachers are more likely to respond to bullying if they receive training.

H_a (12): Teachers are more likely to select a less punitive response if they receive training.

H_a (13): Teachers are more likely to respond if they receive support from other teachers.

H_a (14): Teachers are less likely to select a more punitive response if they receive support from other teachers.

H_a (15): Teachers are more likely to respond if they receive support from the vice principal or principal.

H_a (16): Teachers are less likely to select a more punitive response if they receive support from the vice principal or principal.

H_a (17): Teachers are more likely to respond if they receive support from the school board or district.

H_a (18): Teachers are less likely to select a more punitive response if they receive support from the school board or district.

H_a (19): Teachers are more likely to respond if they receive support from students.

H_a (20): Teachers are less likely to select a more punitive response if they receive support from students.

H_a (21): Teachers are more likely to respond if they receive support from parents.

H_a (22): Teachers are less likely to select a more punitive response if they receive support from parents.

CHAPTER III

METHODS

This study used quantitative methods in order to test the above stated hypotheses. A cross-sectional design was used to collect data with self-administered surveys. This chapter presents information about the method that was used for data collection and analysis. Information about sampling, the research design, the survey method, reliability, validity, human subject protection, weaknesses and strengths of the research design, and data analysis are included.

Sampling

The unit of analysis for this study was teachers. The identified study population included teachers in a public school district in a small southern city. The county where the school district is located covers a geographical area of 393 square miles with a total population of approximately 86,000. The school district serves 9,700 students from prekindergarten through grade twelve. The school district is comprised of 20 schools, including one primary school (grades preK-2), eleven elementary schools (grades K-5; grades 3-5), four middle schools (grades 6-8), and four high schools (grades 9-12).

In 2007, the school district initiated the development and implementation of a comprehensive plan designed to accentuate an effective learning environment that primarily focuses on students. A specific purpose of this comprehensive plan was to create a safe learning environment, which emphasized the physical safety and emotional well-being for everyone in the educational community. One component of the comprehensive plan was the inclusion of a Bullying Prevention Plan, which was to be informed by Olweus' prior research. The plan included a timeline for creating "positive

discipline frameworks" in 2008 - 2009 and an advisory team for student safety and well-being in 2009 - 2010. Planned evaluations and necessary revisions for established programs are scheduled to occur from 2009 - 2014.

The researcher was interested in gathering data from regular full-time teachers, part-time teachers, substitute teachers, student teachers, and teachers' aides and assistants. Essentially, the researcher was interested in obtaining data from individuals in schools who interact with students on a daily basis within the traditional classroom setting. Certain individuals such as guidance counselors and school psychologists were eliminated from the sample population as they were considered to perform different functions within the school. The decision regarding which teachers to include in the sample population was largely grounded in the literature as research has shown that most school-based bullying occurs in the classroom (Olweus, 1993). The researcher was interested in gathering data from every teacher in the study population who fit the above stated criteria.

Access

Access refers to establishing the research relationship between researcher and research participants (Maxwell, 1996). This is usually done in stages rather than as a single event and may need to be acquired from certain individuals other than actual research participants. These other individuals are generally referred to as gatekeepers and may ultimately determine whether or not access to research participants is granted (Maxwell).

Multiple stages for access were required for this research. The first stage for access involved speaking with an administrator in the identified school district. Initial

communication was made by telephone and subsequently by email. A research proposal was prepared for submission to the school administrator for review, which contained similar information as the typical protocol required by an Institutional Review Board (IRB). The administrator then sent an email to the researcher acknowledging the approval to conduct research and also provided contact information for another administrator. The second administrator was responsible for coordinating the school district's bullying prevention programs. This individual first contacted the principals for each of the schools to inform them about the research inquiry and of the researcher's impending attempt to contact each of the principals.

The principals, or gatekeepers, had to provide their consent before research could begin. The researcher both telephoned and emailed individual principals to request permission to survey teachers. Given the various duties principals are accountable for, the researcher was unable to speak directly with principals when contacting them via telephone. Email addresses were obtained from the school district's website. Emails included information about the nature and purposes for the research project. In addition, emails contained a detailed letter (see Appendix A) providing further information about the research project as well as copies of the survey (see Appendix C) and the cover letter that accompanied each survey (see Appendix D). Receiving phone calls from principals after emailing information about the research project allowed the researcher to have informed conversations with each of the principals. The researcher was then able to schedule appointments with principals to discuss whether the research inquiry could move forward and also the process for contacting teachers and distributing surveys. Additional details about survey administration are discussed later.

Research Design

This study utilized a cross-sectional survey design to assess the individual and organizational level factors that influence teachers' responses to bullying. Cross-sectional studies focus on one group at one point in time (Hagan, 2006; Neuman, 2004; Trochim, 2001). The researcher gathers data at a single point in time, "taking a slice or cross-section of whatever it is he or she is observing or measuring" (Trochim, p. 5). Cross-sectional designs, as opposed to longitudinal designs, require less dedication from research participants, take less time to complete, and do not contain as many obstacles related to finding and maintaining a sample population. Initial inquiry into teachers' perceptions about bullying and responding to bullying requires only a cross-sectional study at this time.

Furthermore, the researcher was interested in teachers' current perceptions regarding bullying. This is especially necessary considering the school district has recently begun the process of developing and implementing a comprehensive plan that includes a bullying prevention program. The researcher asked respondents to consider student behaviors since the beginning of the 2008 academic year. The following sections discuss the survey method and administration, survey construction, reliability, validity, human subject protection, data analysis, and strengths and weaknesses of the research design.

Survey Method and Administration

The survey method is the most widely used technique for gathering data in the social sciences (Neuman, 2004). Surveys are routinely used in criminal justice and criminological research to gather data about victimization, fear of crime, attitudes toward

police, and the criminal justice system (Hagan, 2006). The survey method also is appropriate for asking individuals to self-report about particular behaviors, beliefs, attitudes, opinions, characteristics, expectations, self-classification, and knowledge (Hagan; Neuman, 2004). Additionally, surveys are useful instruments for describing characteristics of large sample populations. The purpose of the survey method for this study was to generate quantitative or numerical data about teachers' behaviors and perceptions that could later be statistically analyzed (Fowler, 2002).

The current study used a self-administered mail survey. The self-administered survey method was most appropriate for this study for several reasons. First, the researcher was able to identify and access the sample population with relative ease. Second, members of the sample population were literate and could read and interpret survey questions, which eliminated the need for someone to read the questions to respondents. Finally, teachers were likely willing to cooperate with the researcher to present their perceptions about bullying. Self-administered surveys allowed respondents to complete questionnaires at their own convenience.

Teachers spend most of their day at school instructing students and even have very little time to eat lunch or work on lesson plans. Thus, it was necessary to provide them with a data collection instrument conducive to their busy schedules. Additionally, the questions asked within the survey, the size of the sample population, and geographic restrictions related to data collection determined self-administered surveys as the most appropriate method for this study. Respondents completed and mailed surveys to the researcher's campus office at Radford University (RU).

The survey methodology for this study was adapted from Dillman's (2007) tailored design approach, which is focused primarily on reducing survey error. This approach evolved from the total design method and recognizes that survey research must be designed, or tailored, to meet specific needs and characteristics of the proposed research project. Potential differences in survey populations, sponsorship of research, and content are to be expected and the tailored design approach builds on these characteristics to design the most effective method for receiving survey responses.

The Tailored Design approach is rooted in social exchange theory. From this perspective, surveys are viewed as a typical social exchange, but occur between a researcher and respondent. Researchers want to simultaneously increase the rewards and reduce the costs associated with respondents' participation in research. Rewards refer to what respondents expect to gain from participating (Dillman, 2007). Researchers can increase perceived rewards by letting respondents know why the survey is being done, saying thank you to respondents, asking for advice or assistance from members of the sample population, showing support for values held by potential respondents, creating an interesting questionnaire, providing social validation, and by communicating the lack of opportunities for respondents to voice their concerns. These elements were contained within the cover letter (see Appendix D) that accompanied each survey.

Furthermore, the questionnaires (discussed below) contained questions about a topic of interest to teachers and also was constructed according to the tailored design approach (Dillman, 2007). This approach emphasized the importance of question wording, question ordering, question layout, and overall aesthetics. The researcher also communicated the sparse opportunities for teachers to voice their concerns about school

issues and thanked respondents for their participation. The researcher further conveyed to potential respondents that the study was for dissertation research, which provided teachers in the study population an opportunity to contribute to the researcher's education.

Social exchange theory also identifies cost as an important consideration of self-administered survey research. Cost refers to what an individual perceives they must forfeit or give up for obtaining a reward (Dillman, 2007). Researchers can reduce the perceived costs associated with survey participation by making questionnaires convenient for respondents to complete, by avoiding the use of subordinate language, and also by minimizing requests for personal information. The researcher made every attempt to follow these guidelines for reducing costs. No subordinate or condescending language was used in the questionnaire and minimal personal information was requested. Additionally, the survey was relatively short and easy to comprehend and the likelihood of embarrassment was significantly reduced as surveys were self-administered and did not involve interaction with an interviewer. Finally, self-administration also made respondent participation convenient as individuals were able to complete the survey on their own timetable.

Promoting or establishing trust includes the expectation that the rewards for participation will outweigh the costs (Dillman, 2007). To establish trust, researchers may provide a token of appreciation in advance, acknowledge sponsorship by a legitimate authority, personally sign cover letters, make the task appear important, or they may invoke other exchange relationships. Given that the research study was asking about bullying within the respondents' work environment, the researcher took several of these

considerations into account when designing the survey. These considerations are discussed below as part of the strategies for implementing the mail survey.

Dillman (2007) discusses five strategies that are essential for conducting effective survey research. These strategies include the use of respondent-friendly questionnaires, initiating multiple contacts with potential respondents, a return envelope with a first class stamp for returning the survey to the researcher, personalized correspondence, and prepaid financial incentives. In the spirit of tailored design, some of these strategies, or variations thereof, were utilized in this study. These strategies and how they were implemented are discussed below.

Dillman's (2007) first suggestion for increasing effectiveness in mail survey research is for researchers to construct respondent-friendly questionnaires. This task includes paying attention to the appearance of individual pages as well as the overall design, the ordering of questions, and the use of questions that are salient to the research inquiry. In essence, questionnaires should be easy to read, comprehend, and answer. Furthermore, mail questionnaires should begin with the most interesting questions and end with the least interesting questions. Dillman additionally suggests constructing surveys in booklet format rather than simply stapling multiple pages together. Constructing surveys in booklet format increases their appeal and also provides respondents with an instrument that is easy to complete. Booklets simply appear more interesting and professional than several pages stapled together.

The survey for this study was printed on normal size (8½" x 11") goldenrod paper, folded in half, and stapled on the spine to produce an 8½" x 5½" booklet. The front cover contained a simple graphic design to make the survey memorable and easy to

identify. The graphic included a book, ruler, apple, and chalkboard with the word teacher. The purpose of the graphic was to assist with establishing credibility and trust between researcher and participant (Dillman, 2007). The back cover contained a statement thanking respondents for their participation, a request to include any additional comments, and the address for returning the surveys in case respondents misplaced the envelope provided. Additional information related to survey design is covered in the next section.

The questionnaire was designed in a manner that was easy to comprehend, easy to complete, and easy to return. Additionally, the questionnaire was designed so the most interesting questions were asked first and demographic questions were asked last. The ordering of questions also was guided by information included in the cover letter. For instance, the cover letter that corresponded to the questionnaire conveyed the researcher's desire to ask teachers about their perceptions of school related issues. Thus, the questionnaire began with questions about teacher concerns, then asked about specific concepts of interest, and concluded with demographic questions. Prior research has found this increases respondent interest in completing and returning surveys (Dillman, 2007). Respondents were asked to write their answer on a line provided, place an "X" on a line provided, or circle a number that corresponded to their perceptions. The questionnaire was accompanied by a return envelope with an address label and pre-paid postage for respondents to use when returning questionnaires.

Dillman's (2007) second suggestion is to initiate multiple contacts with members of the sample population. Dillman recommends initiating five contacts with potential respondents. It is suggested the first four contacts are established via mail and the fifth

contact should be through a different mode of communication, such as the telephone. The four mail contacts ought to vary in the manner in which respondents are contacted. For instance, the first contact for this study was to be a prenotice letter that notified potential respondents of the upcoming survey. The second contact was to be the questionnaire accompanied by a cover letter. The third contact was to be a reminder postcard while the fourth contact would consist of sending a replacement questionnaire. The fifth and final contact is considered one last attempt to generate participation and is meant to convey a sense of importance. The purpose for attempting multiple contacts is intended to express the level of desire researchers have for communicating with potential respondents.

Due to time and resource constraints, this study initially proposed three contacts with members of the sampling frame. The first contact was through a prenotice letter (see Appendix B). The prenotice letter establishes a relationship with potential respondents by introducing familiarity between the research project and members of the sampling frame (Dillman, 2007). Establishing a relationship with respondents in any capacity is likely to increase response rates. This was a brief letter written on Indiana University of Pennsylvania (IUP) letterhead informing potential respondents their participation was requested and a survey would soon appear in their mail with further instructions. It also provided a brief explanation of what the survey was about as well as a short discussion of its usefulness. The letter concluded by thanking respondents for their time and consideration. The prenotice letter was to be delivered about one week prior to the survey.

The survey or questionnaire was meant to be the second contact. Upon receiving the questionnaire, potential respondents are likely to recall receiving the prenotice letter. Providing notification of an upcoming survey communicates to potential respondents both the importance of the questionnaire and of their participation. Additionally, the notification communicates to potential respondents that the researcher understands their time is valuable. At the very least the researcher's efforts are likely to be viewed as a professional courtesy, which also serves to encourage participation.

The decision to hand deliver survey materials was made for specific reasons. Schools within the identified district were within driving distance from the researcher and delivering the surveys reduced the costs associated with data collection. More importantly, the researcher wanted to ensure that survey materials were left either in a location where they were easily accessible by all members of the sample population or with someone who understood how they needed to be distributed.

The second contact involved the distribution of the survey itself (see Appendix C). The survey was accompanied by a cover letter (see Appendix D) further explaining the purpose of the research. In an effort to increase the response rate, the letter emphasized the importance of the study and the necessity of respondents' participation. The cover letter additionally served as an informed consent document. As a result, the letter clearly stated that participation was voluntary and respondent's had the freedom to withdraw at any point during the study. Additional information related to informed consent is provided in a later section.

The third contact was an attempt to encourage participation from those members of the sample population who had not completed and returned a survey (Dillman, 2007).

This was to be done using a postcard that would be delivered two weeks after the survey was distributed. The postcard expressed appreciation to respondents who had completed and returned the survey and provided further encouragement for those who had not yet completed and returned a survey. Once these steps were completed, the researcher waited to begin data entry upon receipt of the first completed survey. Fowler (2002) states that mail surveys generally take two months to complete.

Dillman's (2007) third suggestion is to include return envelopes and real first-class stamps with questionnaires. This is meant to encourage and assist respondents with returning their completed surveys. The researcher provided first-class stamps on the return envelopes. This gesture was meant to generate trust between researcher and respondent considering that respondents could use the stamp for whatever they decide. Based on the principles of social exchange, the respondent is more likely to complete and return the survey because of the trust the researcher has displayed by providing a first-class stamp (Dillman). Respondents typically reciprocate an act of trust and are most likely to do so by completing and returning the survey.

Dillman's (2007) fourth strategy for increasing effectiveness of mail surveys is to personalize correspondence between researcher and potential respondents. Personalizing correspondence helps to establish a relationship between researcher and respondent. The personalization of correspondence communicates to respondents that the research is important to the researcher and further communicates the researcher is specifically interested in acquiring information from the individuals identified. Correspondence can be personalized in a number of ways. For this study, personalization was accomplished by signing cover letters in blue ink. Blue ink was used to distinguish it from the black

ink used within the remainder of the typed document. Taking additional time to personally sign each cover letter further expressed the importance for participation to respondents. The researcher additionally communicated to respondents that their participation was greatly appreciated and could prove beneficial to them both personally and professionally. It was further conveyed to members of the sampling frame that participation provided them with the opportunity to voice their concerns.

Dillman's (2007) final strategy for increasing effectiveness in mail surveys is to include prepaid financial incentives. In an effort to reduce costs associated with survey administration, a prepaid financial incentive was not included in this design. Rather than provide a financial incentive, the researcher attempted to appeal to teachers' desires to help and educate. The next section addresses survey construction. Included in this section is a discussion of the independent and dependent variables and the overall survey structure and design.

Survey Construction

The survey items for this study were designed to examine the influence of individual and organizational level factors towards teachers' responses to bullying. Individual level factors included "gender," "years teaching," "grade teaching," and "perceived seriousness of bullying." Organizational factors included "policy," "training," and "support." Two dependent variables were included in this study. The dependent variables were "likelihood of intervention" and "type of intervention." The concepts "age," "race," "teacher type," and "teacher concerns" were added to provide both descriptive information about the sample and to serve as control variables. The following

sections describe the dependent, independent, and control variables as well as information pertaining to the structure and design of the survey instrument.

Dependent Variables

There were two dependent variables included in this study. Both related to teachers' responses to bullying. For this study teachers' responses were measured as the likelihood of intervention by teachers and the level of intervention. Thus, the dependent variables were named "likelihood of intervention" and "type of response." For measuring these variables, Olweus' (1993) definition of bullying was first provided to respondents in order to maintain consistency in measurement. After respondents were given Olweus' (1993) definition of bullying, they were subsequently given two behavioral statements which corresponded to definitions for each type of bullying. In other words, two statements were given for physical bullying, two statements were given for verbal bullying, and two statements were given for relational bullying (see Table 1). For example, the first statement given for physical bullying was: *A student hits, kicks, pushes, or shoves another student.*

Table 1

Types of Bullying and Corresponding Definitions

Type of Bullying	**Definition for Type of Bullying**	**Statements used in Survey**
Physical Bullying	Described as "action-oriented" and often uses direct bullying tactics, such as hitting, pushing, shoving, slapping, kicking, tripping, and other such bodily attacks, as well as damaging another's property (Howard, Horne, & Joliff, 2001; Liepe-Levinson & Levinson, 2005; Ralston, 2005; Smokowski & Kopasz, 2005).	(1) *A student hits, kicks, pushes, or shoves another student.* *(2) A student threatens another student with physical harm.*

Verbal Bullying	Includes teasing, taunting, name-calling, racial slurs, or any instance where words are used to hurt or humiliate another (Liepe-Levinson & Levinson, 2005; Olweus, 1993).	(1) *A student is being teased in a hurtful manner.* (2) *A student is being called hurtful names.*
Relational Bullying	Includes such acts as ignoring individuals, social isolation, intentional exclusion from peer groups, gossiping, spreading rumors, and writing notes; also includes aggressive gestures, such as staring, rolling one's eyes, sighing, frowning, sneering, and other hostile body language (Liepe-Levinson & Levinson, 2005; Ralston, 2005; Smokowski & Kopasz, 2005).	(1) *A student is deliberately being left out of a group of other students.* (2) *A student is having rumors or gossip spread around about him or her.*

Respondents were first asked how likely they are to respond to each behavioral statement. Response categories were structured as an interval level scale and asked respondents to circle a number from 0 - 100%. A score of 0% corresponded to the phrase *Not at all*, a score of 50% corresponded to the phrase *Somewhat likely*, and a score of 100% corresponded to the phrase *Very likely*. Respondents were then asked how they typically respond to the types of situations presented in the statements. Response categories included: "do not respond to these situations," "discuss situation with the student responsible for the situation", "have students involved in the situation talk to one another," "discuss the situation with the entire class," "punish the student responsible for the situation," "call the parents of the student responsible for the situation," "send the student that is responsible for the situation to detention," " and "send the student responsible for the situation to the office."

Independent Variables

This study included independent variables at both the individual and organizational level. Independent variables included in this study were "perceived seriousness," "grade(s) teaching," "years teaching," "policy," "training," and "support." Table 2 below lists each of the variables and how they were coded. This section first describes the individual level variables and then describes the organizational level variables.

Individual level independent variables. Several individual level independent variables were included in this study. The variable "perceived seriousness" was intended to capture teachers' perceptions of the seriousness of different bullying behaviors (i.e., physical, verbal, and relational) and corresponded to the definitional statements in Table 1 above. Teachers' "perceived seriousness" was measured with an interval level scale that included a possible range of 0 - 100%. A score of 0% corresponded to the phrase *Not at all*, a score of 50% corresponded to the phrase *Moderately serious*, and a score of 100% corresponded to the phrase *Very serious*. Seriousness of bullying has been shown to be influential in how teachers respond to bullying (Yoon, 2004).

Table 2

Coding for Independent Variables & Control Variables

Individual Level Variables	**Description**	**Coding**
Perceived Seriousness	Severity of behavior	0 - 100%
Grade(s) Teaching	Grade level(s) served	Elementary = 0 Middle/High School = 1
Years teaching	The number of consecutive years an individual has been teaching	Number of years
Organizational Level Variables		
Policy	Whether school has a policy or not	No = 0 Yes = 1
	Familiarity	0 - 100%
	Satisfaction	0 - 100%
	Effectiveness	0 - 100%
	Consistent enforcement	0 - 100%
	Development	0 - 100%
Training	Received training	No = 0 Yes = 1
	Hours trained	Number of hours spent in training
	More training	0 - 100%
Support	Teacher support	0 - 100%
	Principal support	0 - 100%
	School board support	0 - 100%
	Student support	0 - 100%
	Parent support	0 - 100%
Control Variables		
Age	Chronological age	Number of years
Race/ethnicity		Asian/Pacific Islander = 1 African American = 2 Hispanic/Latino = 3 Native American = 4 Caucasian (White) = 5 Other (please specify) = 6
Gender		Females = 0 Males = 1
Teacher type	Teacher classification	Regular full-time = 0 Non regular full-time = 1
Teacher Concerns	Professional responsibilities	
	Classroom resources/materials	1 - 5
	Student assessment	1 - 5
	Bullying	1 - 5
	Curriculum/Lesson plan	1 - 5
	No Child Left Behind initiatives	1 - 5

The variable "grade teaching" referred to what grade(s) teachers serve. Research also has shown that teachers respond differently according to what grade levels they teach (Olweus, 1993). This is partially due to the amount and type of bullying that occurs in different grade levels. Prior research claims that bullying decreases as children advance through school (Smith et al., 2001). Another point of consideration related to grade level is that different types of bullying are considered more serious than others and different types of bullying occur more frequently than others in particular grade levels (Dake et al., 2003; Glover et al. 2000; Olweus, 1993; Seals & Young, 2003). This does not mean that each type of bullying does not occur in each of the three levels of schools, only that one type appears to happen more frequently than others at different grade levels. This concept was measured by asking respondents what grade(s) they currently teach.

The next independent variable was "years teaching" and referred to teachers' level of professional experience. Research has suggested that new or beginning teachers respond differently to bullying than veteran teachers; in one study, veteran teachers reported intervening more than new or beginning teachers (O'Brien, n.d.). Furthermore, Dake et al. (2003) reported that teachers with the greatest length of service tend to express the most negative attitudes towards responding to students who are bullied. Therefore, this study asked respondents to report the number of consecutive years they had been teaching.

Organizational level independent variables. Three organizational level variables also were included in this study: policy; training; and, support. Research suggests there are three key ingredients necessary for effective, systematic reduction of bullying in schools: schools must have an anti-bullying policy; school personnel must enforce the

anti-bullying policy consistently; and teachers must be involved in the creation and continued development of the anti-bullying policy (Rigby, 2002). Policy, for this study, was measured by first asking respondents if their school had an anti-bullying policy. Response categories included either "yes" or "no." If respondents answered "yes," then they were asked how familiar they were with the policy, how satisfied they were with the policy, how effective they perceived the policy to be, how consistently they enforced the policy, and how involved they were in developing the policy. Each of these contingency questions was structured as an interval scale as respondents were asked to record their answers on a scale from 0 - 100%. A score of 0% for each item corresponded to the phrase *Not at all*, a score of 50% corresponded to the phrase *Moderately* (i.e., moderately familiar, satisfied, effective, consistent, and involved), and a score of 100% corresponded to the phrase *Very* (very familiar, satisfied, effective, consistent, and involved).

Training referred to the preparation that teachers received in order to fulfill the multitude of responsibilities associated with their professional duties. Despite the amount of training that teachers receive, research suggests that teachers do not feel confident in their abilities to effectively respond to bullying (Dake et al., 2003). This concept was first measured by asking respondents whether or not they had received any training since being hired at their school. Additional questions for this concept included asking respondents to report the number of hours they had been trained for responding to bullying during the 2008 - 2009 academic year and whether respondents would like more training (yes/no) for responding to bullying. This last question was measured as an interval level scale with a possible range of 0 - 100%. A score of 0% corresponded to the

phrase *Strongly disagree*, a score of 50% corresponded to the phrase *Neither agree nor disagree*, and a score of 100% corresponded to the phrase *Strongly agree*.

The next independent variable included was "support." Teachers require support from others considering the many challenges they face in today's educational landscape (Yoon, 2003). There was limited research in this area and it was assumed that teachers desire support from administrators as well as others in the school environment. An interval level scale, with a possible range from 0 - 100%, was used to measure each of the five items. These five items asked teachers about support from other teachers, principals/vice principals, the school board/district, students, and parents. A score of 0% for each item corresponded to the phrase *Strongly disagree*, a score of 50% corresponded to the phrase *Neither agree nor disagree*, and a score of 100% corresponded to the phrase *Strongly agree*. Several control variables (i.e., "age," "race/ethnicity," "gender," "teacher type," and "teacher concerns") also were included and are discussed below. Coding for the control variables also was displayed in Table 2

Control Variables

Control variables included in this study were "age," "race/ethnicity," "gender," "teacher type," and "teacher concerns." Respondents were asked to report their age in years at the time of the survey. The variable "race/ethnicity" was measured by asking respondents to place an "X" on a line next to the race/ethnicity they most identified with (e.g., Asian/Pacific Islander, African American, Hispanic/Latino, Native American, Caucasian). The variable "gender" referred to whether respondents were male or female. One study (Rodriguez, 2002) was found during the review of the literature that examined

differences between male and female disciplinary approaches. This concept was measured by asking respondents to place an "X" on the line next to either male or female.

"Teacher type" was another variable used as a control measure. Teacher type referred to the official role of teachers within the school setting. In other words, this item asked respondents to identify whether or not they were regular full-time teachers, part-time teachers, long term substitutes, student teachers, teaching assistants, or something else. "Teacher type" also was used as a demographic variable to describe the final sample.

A final variable used as a control measure was "Teacher concerns." A five item scale was constructed that asked teachers to rank order several concerns relevant to their profession. The five categories included "classroom resources/materials," "student assessment," "bullying," "curriculum/lesson plan," and "No Child Left Behind initiatives." Teachers were asked to rank order their concerns from 1 to 5, with one indicating their highest concern and 5 indicating their lowest concern.

Reliability

Reliability is a measurement concern generally associated with the credibility of research findings or interpretations of research findings (Schwandt, 2001). Reliability is concerned with the likelihood of measurement producing "the same results within repeated trials" (Carmines & Zeller, 1979, p. 11). Measurement is never error-free as it always contains a certain amount of chance/random error. Therefore, reliability is ultimately concerned with establishing consistency within repeated measures. Simply stated, consistency refers to the likelihood of another researcher acquiring similar data and developing approximately the same analytic description of the data collected, if the

researcher were to follow the same procedures outlined in the current proposal and use the same instruments for measurement (Schwandt; Warren & Karner, 2005). Reliability of a particular study is enhanced by using conventional methods for data collection and analysis (Schwandt).

Reliability of the measures used for this study was enhanced several ways. First, the researcher provided consistent measurement of the concepts under investigation (Fowler, 2002). In other words, each respondent completed an identical survey for data collection. This was done to ensure respondents had similar experiences regarding the completion of survey items. Second, survey items were based on information found in a review of the literature. This was done so the researcher could formulate specific questions to ask potential respondents. Essentially, the literature review served as a guide for what the study was interested in building upon. Third, each survey included clear and consistent directions for completing survey items and this information was written in a language easy to understand. Finally, response categories for the survey items were easy to comprehend and easy to complete.

Additionally, it is important for researchers to address the reliability of scales. DeVellis (2003) defines scale reliability as "the proportion of variance attributable to the true score of the latent variable" (p. 27). Therefore, scales must demonstrate a high level of internal consistency. This indicates that the scale is measuring a single, or unitary, construct. This study used a multiple item scale to measure the concept "support." The concept "support" referred to positive assistance that teachers received when responding to bullying.

The survey asked teachers about support from other teachers, the principal or vice principal, the school board or district, students, and parents. While the researcher was interested in the influence of each of these areas of support individually, the cumulative impact of support also was of interest. Each item was measured on an interval scale with a possible range of scores from 0 - 100%. A score of 0% corresponded to the phase *Strongly disagree*, a score of 50% corresponded to the phrase *Neither agree nor disagree*, and a score of 100% corresponded to the phrase *Strongly agree*.

Cronbach's coefficient alpha is a widely used measure of reliability and is defined as "the proportion of a scale's total variance that is attributable to a common source, presumably the true score of a latent variable underlying the items" (DeVellis, p. 31). In other words, Cronbach's coefficient alpha distinguished between the amount of variation that stemmed from the latent variable and the amount attributable to error. Theoretically speaking, alpha may range in value from 0.0 to 1.0 (DeVellis). However, obtaining either of these extreme values is unlikely. A negative alpha indicates negative correlations among scale items. DeVellis recommends the following alpha levels when assessing the internal consistency of a scale: below .60 is unacceptable; between .60 and .65 is undesirable; between .65 and .70 is minimally acceptable; between .70 and .80 is respectable; between .80 and .90 is very good; and anything much above .90 may indicate the scale needs fewer items.

Factor analysis also was used to assess scale reliability. The primary function of factor analysis is to determine the number of factors, or "latent variables," that underlie a specific concept, or dimension (DeVellis, 2003; Floyd & Widaman, 1995). DeVellis

suggests a factor loading of .65 or higher as strong. Factor loadings above .4 were considered acceptable for this study.

Validity

Validity refers to the accuracy, or correctness of measurement. Carmines and Zeller (1979), contend that validity "concerns the crucial relationship between concept and indicator (i.e., measurement)" (p. 12). Construct validity relates to understanding and measurement of concepts used in research (Hagan, 2006; Shadish, Cook, & Campbell, 2002). Construct validity is theoretically and philosophically based and is concerned with whether or not survey questions measure the constructs intended for measurement. For this study, the concern was whether the survey was measuring teachers' responses to bullying, or some other hypothetical construct. Eliminating threats to construct validity involved practical reasoning as there typically is no criteria with which to compare measurements.

Threats to Validity

Fowler (2002) identifies four reasons why participants may respond inaccurately when completing a questionnaire. First, respondents may not understand a question. If respondents infer different meaning from the same question, then error is likely to occur. Researchers must write questions that are easily and consistently understood. The researcher designed the questionnaire to include questions that were easy to comprehend and easy to answer. Fowler also states that researchers sometimes must provide definitions if research is based around a complex construct. Bullying is a complex construct and behaviors that are included in definitions of bullying are also behaviors that occur outside the context of bullying. For example, students may hit, push, tease, taunt,

or reject others for reasons not associated with bullying. Conflict among students who are working their way through the socialization and maturation process is somewhat inevitable and not always bullying. In addition, teachers formulate different conceptualizations of bullying and may not consider some of the behaviors asked about as bullying. For these reasons, the researcher provided a definition of bullying to guide participants' responses. The researcher also asked respondents if they considered the behaviors they were asked about to be bullying. Furthermore, the development of survey questions was guided by the literature review and some were modified from previous questionnaires.

Second, participants may not have the requisite knowledge to answer a questionnaire item accurately (Fowler, 2002). This often occurs when researchers ask respondents to answer very detailed questions, when researchers ask respondents to remember events that occurred in a particular time frame, and when researchers desire information that respondents cannot provide. First of all, the questionnaire did not include any questions that required very detailed responses. The majority of questions were designed as single item measures with interval level response categories. Many questions required respondents to circle the number that corresponded to their perceptions. Other questions required respondents to either write a response on the line provided or place a mark on one of two or more lines provided.

Third, respondents may not remember enough about what is being asked to provide an accurate answer and often have difficulty recalling information about events that happened in the past (Fowler, 2002). Thus, researchers sometimes ask respondents to provide information about events that occurred within a particular time frame. This

study instructed respondents to report on events that happened since the beginning of the previous school year (i.e., 2008 - 2009). By asking respondents to report within a specific time frame, the researcher was attempting to provide a large enough window to receive worthy data, but not so large where respondents' memories were unclear.

Finally, respondents sometimes do not want to answer particular questions (Fowler, 2002). This often occurs when researchers ask questions that respondents perceive to be sensitive or intrusive. The researcher did not anticipate this to be a problem for this study as the topic of inquiry referred to behaviors that teachers respond to regularly as a part of their profession. Furthermore, this survey is measuring teachers' perceptions of bullying rather than actual behaviors. As previously mentioned, this study utilized a self-administered questionnaire and participation was anonymous. Being able to complete the questionnaire on their own and having their identity remain anonymous often increases the level of accuracy. This study also was concerned with survey error as it relates to validity. Survey error is discussed in the following section.

Survey Error

The overall goal of the tailored design approach is to reduce survey error. According to Dillman (2007), there are four sources of error that concerns researchers when gathering data from surveys. These sources of error are related to sampling, coverage, measurement, and non-response. Sampling error occurs when the completed sample (i.e., those individuals who complete and return surveys) does not adequately represent the sample population. This typically occurs when only some, and not all, of the sampling elements are included in the completed sample. Sampling error could result if there are problems with how surveys are distributed. If a low response rate results

from issues related to sampling, then the researcher will have introduced error into the study. Error in this case results from particular members of the sample population being excluded from participation. Assuming there are no problems with survey distribution, individuals will self-select themselves into the sample by choosing to complete and return the survey. Therefore, there is a possibility that the completed sample is not representative of the sample population. However, the researcher attempted to gather data from every member of the sample population or sampling frame as questionnaires were either left in teachers' mailboxes or distributed at faculty meetings. In addition, the researcher collaborated with school principals to ensure that everyone had a chance to participate.

Coverage error is another source of error that researchers must consider when conducting survey research. Coverage error results when every individual in the sample population does not have an equal or known chance of selection into the completed sample (Dillman, 2007). All members must be given an equal chance to participate. For instance, if regular full-time teachers have a greater opportunity to respond than teaching assistants, then error will occur. This error may be significant since teaching assistants have similar responsibilities for responding to bullying as regular full-time teachers. As mentioned previously, the researcher hand delivered surveys to each of the twenty schools. This helped to ensure that every teacher in the sample population had a chance to participate.

Measurement error occurs when survey questions do not accurately measure the concepts they are intended to measure and generally results from poor question wording and poor survey construction (Dillman, 2007). Survey research does not allow for

adjustments to be made to the data collection instrument once it has been distributed. Thus, it is important that researchers attend to the possibilities of measurement error as meticulously as possible prior to collecting data. Prior research and theory was examined to determine relevant variables for inclusion in the construction of survey items. Therefore, it is assumed these concepts of interest were adequately explored. There is still a possibility that measurement error occurred if teachers' responses to the survey did not accurately reflect the responses they would make in real situations. For instance, respondents are sometimes concerned that their behaviors might be construed as socially unacceptable, or undesirable. Measures were taken to alleviate concerns with social desirability. The survey asked teachers about their perceptions and not about actual behaviors. Also, respondents were granted anonymity in exchange for their information, which removed any chance for embarrassment from particular responses.

Error also can arise from non-response (Dillman, 2007). This type of error results from individuals who do not complete or return the survey to the researcher. Non-response error becomes more plausible when the individuals who do not complete and return the survey have very different characteristics than those who do complete and return the survey, and these characteristics are relevant to the study. If these characteristics are not relevant to the study, then non-response error is not plausible. Non-response error differs from sampling and coverage error. Sampling and coverage error occur when researchers do not adequately provide members of the sample population a chance to participate. Non-response error occurs because members of the sample population decide not to participate.

Dillman's (2007) tailored design approach contains five strategies for increasing response rate. These strategies, which already have been discussed, include: using respondent friendly questionnaires, initiating multiple contacts, including first-class stamps and return envelopes, personalizing correspondence, and using prepaid financial incentives. In addition, the researcher targeted a population that was familiar with the research topic and is currently in the early stages of implementing an anti-bullying policy in their school district. The researcher emphasized the notion that respondents' participation would provide teachers with a voice. These strategies likely increased the response rate for this study.

Human Subjects Protection

Every effort was made by the researcher to ensure the protection of research participants. Two Institutional Review Boards (IRBs) assisted the researcher in protecting research participants. The researcher submitted a research proposal to the IRB at Indiana University of Pennsylvania (IUP). IUP was considered the sponsoring university for this research as this study was necessary for partial fulfillment of the requirements for the doctor of philosophy degree in IUP's Department of Criminology. The researcher also submitted a research proposal to Radford University's (RU) IRB. The researcher was a faculty member in the Department of Criminal Justice at RU and therefore was required to complete their IRB process. The researcher submitted an additional research proposal to school administrators within the school district. Two administrators from the school district reviewed the proposal prior to granting access. The primary role of the IRBs and administrator review were to ensure human subjects'

protection. All three review processes approved the researcher's request to conduct research.

Participants also must provide their consent to participate. Before doing so, it was the researcher's responsibility to adequately inform participants of the purposes and procedures of the research as well as the possible risks and benefits involved in participating. As previously stated, the survey was accompanied by a cover letter, which conveyed the purpose of the reach inquiry, the importance and usefulness of participation, and also served as an informed consent document. Completing and returning the survey was considered implied consent from respondents. The informed consent document communicated to participants the voluntary nature of participation, the level of risk involved, the absence of deception, and that participation would remain anonymous. Each of these items is discussed below.

The researcher anticipated not having any direct contact with research participants. Therefore, it was possible that teachers could inaccurately perceive that completing the survey was mandatory. The informed consent document, or cover letter, explained that participation was voluntary and respondents had the freedom to withdraw at any point during the process. The informed consent document further explained that the research inquiry was being conducted by a doctoral student and was not being done in connection with the school district. Additionally, the informed consent document stated there were no repercussions for not participating.

There were minimal risks to respondents for participating in this study. It was reasonable to assume that potential respondents sometimes discuss issues pertaining to bullying within their professional capacity. However, there was a chance that some

respondents would feel uncomfortable either with reporting their perceptions of behavior or with reporting on the research topic. Teachers often receive a considerable amount of scrutiny from others in society and may have been reluctant to participate. Conversely, participants may have found it rewarding to convey their concerns about school related issues.

A key ethical dilemma within social science research is the issue of deceptive research (Warren & Karner, 2005). There were no elements of deception used within this research study. Prior to gaining access to the sample population, the primary researcher disclosed the purpose and nature of research intentions to potential respondents and discussed any potential risks associated with completing and returning the survey. Contrary to deception, the researcher was attempting to establish trust with potential respondents in order to obtain truthful and accurate data. Methods for establishing trust included the absence of deception, the voluntary nature of participation, the minimal risks involved, the use of an informed consent document, the relevance of the topic to the sample population, and the protection of anonymity.

The most significant concern related to respondent protection is the protection of their privacy. Respondents are more likely to participate in research inquiries if they are allowed to participate anonymously (Dillman, 2007). Anonymity means it is impossible for the researcher to associate any particular data with the individual that provided that data (Neuman, 2004). The researcher ensured anonymity first, by not having any direct contact with the sampling frame. As previously discussed, surveys were hand delivered to each of the schools and were left in teachers' mailboxes. Also, the survey was self-administered and was mailed back to the researcher. Second, respondents were further

instructed not to include any identifying marks on the survey. Thus, the researcher could not identify which respondent or which school the survey was returned from. Third, surveys were accompanied by a return envelope that was provided by the researcher along with pre-paid postage. This was done so that respondents could mail the survey from a location of their choosing to further ensure anonymity. Respondents also had the opportunity to contact the researcher via email in the event that another copy of the survey was needed. If contacted, the researcher would email the survey and delete the email request immediately afterward. This action would not affect anonymity mainly because the researcher would not know whether or not the individual who requested the survey via email actually completed and returned the survey. The researcher began data entry as completed surveys were returned.

Weaknesses and Strengths

Research designs generally contain particular weaknesses and strengths, especially in the social sciences. Researchers must critically analyze the specific challenges related to their topic of interest and design their study in a way that will either eliminate or reduce these challenges so that reliable and valid data is received. Some research obstacles are inevitable; however, it is still imperative that researchers consider these obstacles and attempt to include features that will strengthen their research design. This section addresses the specific weaknesses and strengths of research design for this study.

Weaknesses

There are a few elements of the research design that may be considered as weaknesses. The study used self-administered, mail surveys to collect data and there are

several inherent weaknesses within this method. For instance, researchers are not able to explain the study in person, open-ended questions are not feasible, methods are not flexible, and high response rates are unlikely. Explaining the research study in person would provide the researcher an opportunity to answer any questions or alleviate any concerns that respondents may have. In addition, the researcher would be able to more explicitly convey that the research study was intended to benefit teachers. The researcher attempted to accomplish these things by stating very clearly in the prenotice and cover letters the purposes and nature of the research inquiry. Furthermore, the questionnaires were simple and straightforward and the respondents were well-educated and literate. Therefore, the need to explain the research in person was not of high concern.

A second concern was the lack of flexibility in the survey method. Once the questionnaires were formulated and distributed, adjustments were not possible. This could have proved harmful to the results if questions were misunderstood or not articulated clearly. The researcher followed the tailored design approach formulated by Dillman (2007) and also the suggestions for improving research studies by Fowler (2002). Both Dillman and Fowler provide valuable information for constructing and administering questionnaires. In addition, the questionnaire was constructed after a thorough review of the literature and some of the survey items were modified from existing questionnaires.

Third, a common challenge for researchers utilizing the survey method is receiving high response rates. It is very easy for members of the sampling frame to disregard a survey that is either sent to them or left for them to complete. Mail survey researchers typically hope for a 50% response rate at best (Dillman, 2007). According to

Fowler (2002), there is no agreed upon response rate and researchers have traditionally been satisfied with a response rate as low as 30%. However, if response rates are too low, then validity of the findings is severely impacted. The researcher included elements of the tailored design approach (discussed above) in an effort to increase response rates.

Finally, there were concerns related to survey administration. Regarding the distribution of surveys, questionnaires were placed in mailboxes for regular full-time teachers. However, it was unknown if teaching assistants, part-time teachers, or substitute teachers had mailboxes within the schools. The researcher garnered assistance from school principals and secretaries to alleviate this concern.

Strengths

There are several strengths contained within this research design that are related to sampling, the method of data collection, and the topic of inquiry. The sample population was well educated, literate, and interested in the topic. These characteristics were expected to increase the response rate and also increase the quality of data received. In addition, these characteristics increased the advantages for using the survey method. For instance, respondents with the above mentioned characteristics were more likely to understand the nature of the survey questions, to comprehend the questionnaire, and more likely to complete the questionnaire.

The survey method itself contains several advantages. Researchers are able to collect large amounts of data in a relatively short time frame and may do so at a reasonable cost. As previously mentioned, survey methods also allow respondents to complete questionnaires at their own convenience and in privacy. This particular survey was formulated by reviewing the literature and from researching previous surveys used

for measuring bullying related behaviors. Thus study also utilized Dillman's (2007) strategies for reducing error in survey research. Respondents may have found it satisfying to share their insights and perceptions about the topic of inquiry. This survey provided teachers with that opportunity.

Analysis

This section presents the statistical techniques that were used for interpreting the data. Analysis used both descriptive and inferential statistics. Descriptive information included variable names, variable descriptions, coding schemes, and information related to the distributions of variables. Factor analysis and scale reliability tests also were conducted for scaled dependent and independent variables. In addition, bivariate correlations among independent variables was explored and presented in a correlation matrix. Multivariate analysis was conducted to explore the influence of individual and organizational level factors towards the likelihood of responding to bullying. Finally, logistic regression analysis was utilized for analyzing teachers' typical responses to bullying.

Descriptive Statistics

Descriptive statistics were used to describe the data. Descriptive statistical information typically includes measures of central tendency, dispersion, and associations between variables (Miethe, 2007). Researchers use descriptive statistics as a way to present data in an organized and reduced manner. Characteristics of the completed sample were provided as well as information relevant to the independent variables. Information regarding control and demographic variables also was presented.

Bivariate Correlations

Bivariate correlations were analyzed to view the relationships between independent variables and to check for multicollinearity. Multicollinearity occurs when one independent variable is highly correlated with another independent variable or "linear combination of other independent variables" (Lewis-Beck, 1980, p. 58). Since many of the variables used in social science research are related to one another conceptually, multicollinearity becomes a problem when conditions are extreme.

Correlation coefficients for Bivariate analysis are interpreted within a range of -1 to 1 (Bachman & Paternoster, 2004). A value of -1 or 1 indicates a perfect association between two variables. A positive value indicates that *y* reacts in the same direction as the change in *x*. Thus, as *x* increases one unit, *y* will increase a specific amount, or as *x* decreases one unit, *y* will decrease a specific amount. A negative sign signifies an inverse relationship. As *x* increases or decreases, *y* reacts inversely (i.e., if *x* increases, then *y* decreases or if *x* decreases, then *y* increases). A value of 0 implies there is no association between two variables. Correlation coefficients are considered small when they range from .10 to .30, medium when .31 to .50, or large when .51 to 1.0 (Cohen, Cohen, West & Aiken, 2003). The correlation matrix is provided in Appendix G and displays the sample size, Pearson's product moment correlation coefficient, and significance at both the .01 and .05 levels.

Multiple Regression

The primary aim of multiple regression is to "estimate the effect of several independent variables on a dependent variable" (Bachman & Paternoster, 1997, p. 490). Multiple regression, or Ordinary Least Squares (OLS) regression, allows for prediction of

the value of the dependent variable based on a linear combination of independent variables. Specifically, this study was interested in predicting the influence of individual and organizational level factors towards teachers' likelihood of responding to bullying. Multiple regression models provided coefficients for estimating the effects the independent variables had toward the dependent variables and are based on the method of least squares (Miethe, 2007). The following equation was used to estimate these effects for OLS regression:

$$\hat{y} = a_0 + b_1x_1 + b_2x_2 + b_3x_3 + \ldots + b_kx_k + e$$

Where:

a_0 = constant
$\hat{y}$ = likelihood of responding to bullying (i.e., physical, verbal, or relational)
b_k = slope
x_1 = perceived seriousness of this type of bullying (i.e., physical, verbal, or relational)
x_2 = grade teaching
x_3 = years teaching
x_4 = training
x_5 = policy
x_6 = support

There are two fundamental reasons why researchers use multiple regression (Miethe, 2007). First, researchers acknowledge that human behavior is a complex phenomenon and very rarely, if ever, is there a single cause for why people do things. Therefore, researchers use multiple regression to analyze phenomena that are believed to result from multiple influences. Multiple regression provides answers to the relative importance of multiple independent variables within the same analysis and is able to isolate the contribution of each independent variable within the equation. Second, researchers are interested in determining which of these multiple causes is most important for understanding or explaining variation in the dependent variable. This often is referred

to as providing statistical control. Statistically controlling for the influence of other variables allows researchers to analyze other variables causing variation within the dependent variable (Miethe).

Logistic Regression

Binary logistic regression is most useful when attempting to model the event probability for a categorical response variable with two outcomes (Menard, 2002). In other words, logistic regression is interested in whether the classification of cases into one of the categories for the dependent variable can be predicted by the independent variables. For instance, this study was interested in whether a sample of teachers were more likely to respond informally (0) or formally (1) to bullying. Logistic regression coefficients were examined to estimate odds ratios for each of the independent variables.

Several hypotheses were tested using logistic regression. Specifically, hypotheses four, six, eight, ten, twelve, and fourteen were analyzed using logistic regression. These six hypotheses investigated whether teachers would choose an informal response or a formal response when responding to bullying. Individual hypothesis statements were related to the following independent variables: "years teaching," "grade teaching," "perceived seriousness," "policy," "training," and "support."

Conclusion

This dissertation project examined the influence of individual level and organizational level factors towards teachers' responses to bullying. During the latter part of the twentieth century, and especially since the school shootings at Columbine High School, national and international concerns with the harmful effects of bullying behavior increased (Thompson & Cohen, 2005). Once a largely neglected area of

research, bullying has now received a multitude of disciplinary attention (Rigby, 2002). Consequently, the social and political climate enveloping bullying has placed considerable pressure on schools, and ultimately teachers, to support anti-bullying policies and to respond effectively.

Teachers struggle with making moment-to-moment decisions on a daily basis as to whether they are seeing children play, tease, harass, fight, or bully one another (Hazler et al., 2001). Furthermore, teachers often are divided about how to respond to bullying behavior as views differ according to the frequency and severity with which bullying occurs, as well as whose responsibility it is to respond (Rigby, 2002). Of central concern are teachers' attitudes and perceptions toward bullying behavior, which will influence when and how teachers respond (Dake et al., 2003; Olweus, 1993; Rigby).

This study utilized quantitative research methods. A self-administered survey was used for data collection purposes. Dillman's (2007) tailored design approach and Fowler's (2002) suggestions for designing effective mail surveys assisted in research design and survey construction. Data analysis began by visually examining the data. Next, descriptive statistics were used to describe characteristics of the completed sample. Third, bivariate correlations were examined to look at the relationships between the variables. Finally, multivariate and logistic regression were used to determine how each of the independent variables interacted with the dependent variables.

As designed, this study has produced useful knowledge in an important area of interest and has generated grounded, inductive interpretations that may be used in further development of a theoretical understanding of teachers' responses to bullying. This research design was conscious of issues related to reliability and validity. However,

reliability and validity are not goals obtained through methods. The primary concern for establishing reliability, or credibility, is consistency; consistency with both methods and results. Validity "refers to the correctness or credibility of a description, conclusion, explanation, or interpretation" (Maxwell, 1996, p. 87).

This research ultimately revealed insight from teachers' perceptions about bullying in regards to prevention and intervention. Despite the influx of recommendations from researchers and community members that schools must implement anti-bullying policies and that teachers are primarily responsible for their success or failure, there is still not a clear and consistent definition of bullying. Furthermore, there has been little consensus on how bullying has been measured and evaluations of current anti-bullying policies and programs are lacking. If teachers are going to be held responsible in the final evaluation, then it was reasonable to begin with their understanding of the situation. The following chapter presents the findings and analysis for this study.

CHAPTER IV

ANALYSIS AND FINDINGS

This chapter describes the analyses conducted in order to test the above stated research hypotheses. The chapter first provides information about the sample. Second, descriptive statistics about the variables included in this study are discussed, as well as factor analysis and scale reliability for relevant variables. Next, results of regression analysis are presented. OLS regression was used to analyze one dependent variable while logistic regression was used to analyze the other. Finally, this chapter concludes with a summary of analysis and findings.

Sample

The analysis was based upon a sample of 134 teachers in one public school district in a southern state. Characteristics of the sample population and sampling frame are provided in Appendix E. The first column identifies the number and types of schools in the sample population and sampling frame. Column two displays the number of teachers employed at each school according to individual school websites. Finally, the third column provides a visual representation of which schools agreed to participate in the study. An "X" indicates the principal for that particular school granted access and a "dash" indicates that access was not granted.

The sample population included twenty schools within one school district and a total of 789 teachers (see Appendix E). Principals for each of the twenty schools were contacted via telephone and email. However, access was not obtained from every principal. Hence, characteristics of the sampling frame were not identical to the sample population. Principals at thirteen of the schools provided access to 519 teachers (see

Appendix E). The range of teachers for each of these thirteen schools was between 24 - 97 teachers, which provided an average of forty teachers per school. Two principals notified the researcher of their decision to not participate. Principals from the five remaining schools did not return telephone or email messages.

Surveys were distributed during March 2009. Appointments were scheduled with the thirteen principals who responded to the researcher's request. The researcher then met with these principals, discussed the research project and answered any additional questions. Initially, based upon suggestions by Dillman (2007), the researcher had planned to have three contacts with the teachers in the sampling frame. This was planned to include delivery of a prenotice letter, the survey, and a follow-up postcard. However, after discussions with several principals, only two contacts were made, which included an email from the principal to the teachers announcing the survey.

Surveys were placed in teachers' mailboxes by the researcher at one school and by principals at ten of the schools. Principals at these eleven schools then emailed teachers to notify them of the survey and its origin. The additional two principals preferred to wait and pass out the surveys at their next faculty meeting. Surveys and cover letters were placed into self-addressed envelopes with pre-paid postage. Teachers only needed to complete the survey, seal the envelope, and place the survey in the mail. Surveys were returned to the researcher's campus office. Teachers self-selected into the sample by choosing to complete the survey and return it to the researcher. Teachers deciding not to either complete or return the survey obviously were not included in the analysis.

Again, the completed sample included 134 teachers out of 519 teachers available, which provided a response rate of 25.8%. Thus, 385 members of the sampling frame did not participate in the study. Although one respondent returned a blank survey with a post-it note that read, "I do not complete any surveys for any reason," it was difficult to say why some members of the sampling frame chose to participate and why some did not. It was possible that some teachers' demanding schedules would not permit them to participate, or that some teachers did not perceive the act of completing the survey worthwhile. It also could have been due to the fact that teachers are inundated with survey requests in the school district that was utilized – this information was relayed by several principals during the process of gaining access. The following section provides descriptive statistics about the sample, items used for grounding the study, the dependent variables, and the independent variables.

Descriptive Statistics

Several survey items were included to further describe characteristics, or demographics, of the sample. These items included "age," "race/ethnicity," "gender," "teacher type," "grade teaching," and "years teaching." Table 3 below presents the frequencies, percentages, and measures of central tendency for these variables.

"Age" was measured as a continuous variable, which asked respondents to record their age in years. Teachers' ages ranged from 24 - 65 and the average age for teachers in this sample was 43 years old. Respondents also were asked to record their race/ethnicity, gender, and the type of teacher they were identified as in their school (e.g., regular full-time, teaching assistant, substitute). "Race/ethnicity" was coded as White and Non-white, "gender" was coded as female or male, and "teacher type" was coded as Regular

Full-Time and Non-regular Full-Time. As Table 5 indicates, the overwhelming majority of respondents were white (99.2%), female (91.7%), and regular full-time teachers (91.7%). Therefore, race/ethnicity, gender, and teacher type were excluded from analysis due to lack of variation within the sample.

Table 3

Descriptive Statistics for Sample Characteristics (n=134)

Variable Name	Variable Description	Coding	Distribution
Age	Age of Respondents	Age in years	Mean = 43.4
Race/Ethnicity	Race/Ethnicity of Respondents	White = 0	99.2%
		Non-white = 1	.8%
Gender	Gender of Respondents	Female = 0	91.7%
		Male = 1	8.3%
Teacher Type	Type of Teacher in school	Regular Full-Time = 0	91.7%
		Non-Regular Full-Time = 1	8.3%
Grade Teaching	Grade level taught	Elementary School = 0	60.8% (79)
		Middle/High School = 1	39.2% (51)
Years Teaching	Consecutive number of years	Number of years teaching	Mean = 12.432
			Median = 10

The variable "grade teaching" refers to which grade levels teachers instruct as the sample included teachers from kindergarten through twelfth grade. The majority of teachers in the sample were elementary school teachers (60.8%). Conversely, there were not as many middle school teachers (23.8%) or high school teachers (15.4%) in the sample. An ANOVA test was run for middle school and high school teachers to check for any similarities or differences between these groups for the following variables: "likelihood of responding to physical bullying," "likelihood of responding to verbal bullying," "likelihood of responding to relational bullying," "perceived seriousness of physical bullying," "perceived seriousness of verbal bullying," "perceived seriousness of relational bullying," "years teaching," "total training hours," "policy," and "support."

There were no significant differences between these groups on any of these variables. For this reason, middle and high school teachers were grouped together for analysis. Prior research supports grouping middle and high school teachers together as physical bullying occurs more often in lower grades with younger students and verbal and relational bullying occurs more frequently with older students (Liepe-Levinson & Levinson, 2005; Olweus, 1993). Consequently, this variable was recoded as 0 for elementary school teachers and 1 for middle and high school teachers for analysis purposes.

The variable "years teaching" asked respondents to record the consecutive number of years they had been teaching. Previous research suggests that new or beginning teachers intervene in bullying situations less than veteran teachers (O'Brien, n.d.). O'Brien's study categorized new teachers as those with less than five years of service, beginning teachers as those with five to ten years of service, and veteran teachers as those with more than ten years of service. For this sample, the consecutive number of years the teachers had served ranged from 0 to 38 years. It is interesting to note, for this study, the mean score for this variable was 12.432. This indicates that according to O'Brien, the average teacher in this sample would be classified as a veteran teacher.

Descriptive Statistics for Grounding the Study

As mentioned in the literature review, teachers' responsibilities within education have increased in recent years (Elliott, Hamburg et al., 1998; Elliott, Williams et al., 1998; Stephens, 1998; Stetson et al., 1998). Therefore, this study was interested in teachers' perceptions about their various professional responsibilities, the amount of bullying observed in their school, whether they considered these observed behaviors

bullying, whether they had received any training since being hired, whether they preferred more training, and whether their school had an anti-bullying policy. Thus, Table 4 includes information about the following five concepts: Teacher Concerns, Witnessed Behavior, Considered Behavior Bullying, Training, and Policy.

Table 4

Descriptive Statistics for Grounding Variables (n=134)

Concept	Concept Description	Coding	Distribution
Teacher Concerns			
Curriculum/Lesson Plan	Course content	1-5	49 (43.8%)
No Child Left Behind Initiatives	School Policy/Program	1-5	32 (28.6%)
Bullying	Student conflict	1-5	14 (12.5%)
Student Assessment	Evaluation of students work	1-5	9 (8%)
Classroom Resources/Materials	Necessary equipment/supplies	1-5	8 (7.1%)
Witnessed Behavior			
Physical Bullying (hit, kick, push, shove)	Teacher observed behavior during 2008-2009 academic year	0 = no, 1 = yes	1 (93.2%)
Physical Bullying (threaten another)	Teacher observed behavior during 2008-2009 academic year	0 = no, 1 = yes	1 (64.2%)
Verbal Bullying (teasing)	Teacher observed behavior during 2008-2009 academic year	0 = no, 1 = yes	1 (91.7%)
Verbal Bullying (calling names)	Teacher observed behavior during 2008-2009 academic year	0 = no, 1 = yes	1 (85%)
Relational Bullying (being left out)	Teacher observed behavior during 2008-2009 academic year	0 = no, 1 = yes	1 (82.6%)
Relational Bullying (rumors/gossip spread)	Teacher observed behavior during 2008-2009 academic year	0 = no, 1 = yes	1 (64.1%)
Considered Behavior Bullying			
Physical Bullying (hit, kicked, pushed, shoved)	Teacher identified as bullying	0 = no, 1 = yes	1 (87.9%)
Physical Bullying (threaten another)	Teacher identified as bullying	0 = no, 1 = yes	1 (94.6%)
Verbal Bullying (teasing)	Teacher identified as bullying	0 = no, 1 = yes	1 (93.9%)
Verbal Bullying (calling names)	Teacher identified as bullying	0 = no, 1 = yes	1 (93.0%)
Relational Bullying (being left out)	Teacher identified as bullying	0 = no, 1 = yes	1 (77.4%)
Relational Bullying (having rumors/gossip spread)	Teacher identified as bullying	0 = no, 1 = yes	1 (89.9%)
Training			
Received Anti-bullying training	Teacher had received formal guidance for responding to bullying	0 = no, 1 = yes	1 (91%)
Would like more training	Teacher desired more training	0 - 100%	Mean = 58.52% Median = 50%
Policy			
Formal Policy or not	Awareness of Existing Policy	0 = no, 1 = yes	1 (94%)

Teacher concerns. For "teacher concerns," teachers were asked to rank order the following five items: classroom resources/materials, student assessment, bullying,

curriculum/lesson plan, and no child left behind initiatives. Specifically, teachers were asked to rank these items on a scale from 1 - 5, where 1 indicated their highest concern and 5 indicated their lowest concern. Table 4 displays the frequency count for each of the five ranked items. Frequencies for these concerns refer to the number of teachers that ranked each concern the highest (1).

For this sample, 49 teachers (43.8%) ranked curriculum/lesson plan as their highest concern. Bullying was ranked as the first highest concern by 14 teachers (12.5%). These findings ultimately served to illustrate the professional responsibilities that teachers must deal with on a daily basis. Furthermore, the above information showed that many of the teachers in this sample considered other professional responsibilities as a higher concern than bullying.

Witnessed behavior. The second category presented in Table 4 includes information about whether or not teachers observed any of the bullying behaviors included in the survey and whether or not they considered those behaviors as bullying. Recall that six definitional statements were utilized for asking respondents about different types of bullying: two for physical, two for verbal, and two for relational. For example, the first statement was, "A student hits, kicks, pushes, or shoves another student." Respondents were then asked, "Have you seen this type of behavior occur this academic year (i.e., 2008 - 2009)?" Respondents also were asked if they had seen students threaten other students, tease other students, call other students names, leave students out of groups, and spread rumors or gossip about other students. All of these behaviors were witnessed by a majority of teachers in the sample.

The type of bullying witnessed the most by teachers was physical bullying that involved hitting, kicking, pushing, or shoving (93.2%). Verbal bullying that involved teasing (91.7%) also was witnessed by a large majority of teachers in the sample. An interesting finding was that physical bullying that involved students threatening other students (64.2%) and relational bullying that involved rumors or gossip being spread (64.1%) were witnessed the least by teachers in this sample. These findings are consistent with the literature, which suggested that verbal and relational bullying behaviors often are unnoticed by teachers (Griffin & Gross, 2004; Hazler et al, 2001; Smokowski & Kopasz, 2005).

Considered behavior bullying. The researcher also was interested in whether teachers considered certain behaviors bullying. Teachers were asked the following question about the various types of behaviors included in the six definitional statements, "Do you consider this type of behavior bullying?" Verbal bullying that included teasing (93.9%) and name-calling (93%) both were considered bullying by a large majority of teachers in this sample. An interesting finding is that only 87.9% of the teachers in this sample considered physical bullying that involves hitting, kicking, pushing, or shoving to be bullying while 94.6% of the teachers considered physical bullying that involves students threatening other students as bullying. Another interesting finding is that 77.4% of the teachers considered being left out of peer groups as bullying.

Training. Teachers also were asked about training. Teachers were first asked, "Have you received any training for responding to bullying since being hired at your school?" A vast majority of teachers (91%) in the sample indicated they had received anti-bullying training since being hired at their respective schools. Teachers also were

asked about the number of training hours received during the 2008 - 2009 academic year, which is discussed in a later section. Next, teachers were asked, "Using the scale below, respond to the statement, 'I would like more training for responding to bullying.'" Teachers then were instructed to record their score on an interval level scale ranging from 0 - 100%. A score of 0% corresponded to the phrase *Strongly Disagree*, a score of 50% corresponded to the phrase *Neither Agree nor Disagree*, and a score of 100% corresponded to the phrase *Strongly Agree*. The average score was 58.52% and the median score was 50%, which indicated that the average teacher in this sample neither agreed nor disagreed with the notion that more training was desired.

Policy. Regarding policy, teachers were asked, "Does your school have a formal anti-bullying policy?" According to the results, 94% of respondents indicated their school did have an anti-bullying policy. The interesting aspect for this finding is the few teachers who reported having no anti-bullying policy. Eight teachers out of 134 responded "no" when answering this item on the survey. However, in 2007, the school district initiated the development and implementation of a comprehensive plan that was to focus partially on the prevention of bullying. This portion of the comprehensive plan was scheduled to be completed by the 2008 - 2009 academic year, which corresponded to the dates of for survey distribution.

Descriptive Statistics for Dependent Variables

The descriptive statistics for the dependent variables used for this study are presented in Table 5 below. This study originally had two broad dependent variables: "typical response to bullying" and "likelihood of responding to bullying." Both

dependent variables were further dissected to correspond with various types of bullying (i.e., physical, verbal, and relational).

Table 5

Descriptive Statistics for Dependent Variables (n=134)

Dependent Variable Name	n	Frequency 0	Frequency 1
Least Serious Response to Physical (hit, kick, push, shove)	132	87 (65.9%)	45 (34.1%)
Most Serious Response to Physical (hit, kick, push, shove)	132	63 (47.7%)	69 (52.3%)
Least Serious Response to Physical (threaten)	129	69 (53.5%)	60 (46.5%)
Most Serious Response to Physical (threaten)	129	47 (36.4%)	82 (63.6%)
Least Serious Response to Verbal (tease)	130	118 (90.8%)	12 (9.2%)
Most Serious Response to Verbal (tease)	130	101 (77.7%)	29 (22.3%)
Least Serious Response to Verbal (called names)	129	119 (92.2%)	10 (7.8%)
Most Serious Response to Verbal (called names)	129	104 (80.6%)	25 (19.4%)
Least Serious Response to Relational (left out)	127	122 (96.1%)	5 (3.9%)
Most Serious Response to Relational (left out)	128	121 (94.5%)	7 (5.5%)
Least Serious Response to Relational (rumors/gossip)	126	108 (85.7%)	18 (14.3%)
Most Serious Response to Relational (rumors/gossip)	126	101 (80.2%)	25 (19.8%)

Dependent Variable Name	n	Coding	Mean	Median	SD	Minimum	Maximum
Likelihood of Responding to Physical	132	0-200	193.94	200	13.35	130	200
Likelihood of Responding to Verbal	133	0-200	190.98	200	15.95	140	200
Likelihood of Responding to Relational	129	0-200	172.09	180	32.06	60	200

The dependent variable "typical response to bullying" became: "typical response to physical bullying," "typical response to verbal bullying," and "typical response to relational bullying." Although, due to the manner in which respondents answered survey items, further recoding was required for analysis. Respondents were asked the following question regarding how they typically respond to physical, verbal, and relational bullying behaviors: "Based on your experience, how would you typically respond to this type of behavior?" Respondents were further instructed to "please choose only one answer" from the provided list.

Several teachers indicated that choosing only one response was inadequate when responding to bullying. One teacher mentioned that schools have a tiered, or graduated, response system. For example, a teacher may discuss the behavior with the students involved, call the students' parents, and send the student to detention. It was further mentioned by teachers' that responses to bullying vary depending on the situation, the students involved, prior experience with the students involved, severity of the situation, prior number of occurrences, and whether or not the incident is perceived as bullying. This notion is corroborated by prior research, which also claims that disciplinary responses differ significantly depending on the situation, offense committed by the child, and perception of the offense by the adult (Rodriguez, 2002).

These sentiments were revealed by respondents either writing their comments within the margins of the survey or on the back of the survey where space was provided for them to share additional comments. Consequently, several teachers chose more than one response when answering these questions. For example, one teacher chose four of the typical responses when responding to the definitional statement, "A student hits, kicks, pushes, or shoves another student." Overall, thirty-three teachers marked more than one response on at least one of the six definitional statements. This occurred twenty-one times for the first definitional statement (hit, kick, push, shove), eighteen times for the second definitional statement (threaten), twenty-two times for the third statement (tease), twenty times for the fourth statement (called names), sixteen times for the fifth statement (left out), and thirteen times for the sixth definitional statement (rumors/gossip spread). For this reason, the "typical response" variables were split to create two categories for each definitional statement.

The next step for recoding these variables involved collapsing the response options. Informal typical responses (recoded as 0) referred to responses that involved only teachers and students. Formal typical responses (recoded as 1) referred to responses that involved parents or administrators. It is important to note that two individuals marked the response option "do not respond to this type of behavior" for the definitional statement, "A student is deliberately being left out of a group of other students." These two cases were considered outliers and were excluded from the analysis. However, it was still interesting to find only two instances in which a respondent reported they do not respond to a particular behavior.

Table 5 displays the frequencies and percentages for teachers' typical responses for each of the definitional statements. For example, eighty-seven teachers (65.9%) responded informally as their "least serious response" when responding to physical bullying that involved hitting, kicking pushing, or shoving between students and forty-five teachers (34.1%) responded formally. Similarly, sixty-three teachers (47.7%) responded informally as their "most serious response" to physical bullying that involved hitting, kicking, pushing, or shoving and 69 teachers (52.3%) responded formally as their "most serious response" to physical bullying that involved hitting, kicking, pushing, or shoving.

An interesting finding from the descriptive statistics presented in Table 5 is that the "most serious response" for both physical bullying categories were the only two categories that contained a higher percentage of formal responses than informal responses. This is likely due to the nature of these behaviors. Due to the relatively open

nature of physical bullying, it is the most visible and is typically considered the most serious (Liepe-Levinson & Levinson, 2005; Smokowski & Kopasz, 2005; Yoon, 2004).

The second dependent variable "likelihood of responding to bullying" became three dependent variables: "likelihood of responding to physical bullying," "likelihood of responding to verbal bullying," and "likelihood of responding to relational bullying." Recoding of these variables also required several steps. After each of the six definitional statements on the survey, respondents were asked, "Using the scale below, how likely are you to respond to this type of behavior?" Respondents were then instructed to record their score on a scale from 0 - 100%. A score of 0% corresponded to the phrase *Not at all*, a score of 50% corresponded to the phrase *Somewhat likely*, and a score of 100% corresponded to the phrase *Very Likely*. The two definitional statements for each type of bullying were then additively combined to create an interval scale ranging from 0 - 200%. For example, a respondent who marked 90% for the statement, "A student hits, kicks, pushes, or shoves another student" and 100% for the statement, "A student threatens another student with physical harm," received a score of 190% for the variable "likelihood of responding to physical bullying." This process was repeated for both "likelihood of responding to verbal bullying" and "likelihood of responding to relational bullying."

Both the mean and median are reported for these variables. As Table 5 shows, the distribution for these variables is negatively skewed. This likely occurred for a couple of reasons. First, given the topic of inquiry and the nature of teachers' profession, it is plausible to assume that social desirability affected teachers' responses. DeVellis (2003) describes social desirability as occurring when a respondent "is strongly motivated to

present herself or himself in a way that society regards as positive" (p. 87). In other words, asking teachers how likely they are to respond to bullying is expected to generate a distribution with a large number of scores clustered at the high end of the scale. On the other hand, teachers are expected to respond to bullying in school and are, in most cases, professionally obligated. Thus, a negatively skewed distribution could result from either an ethical perception of accountability or because of their professional role as a teacher. It also is possible that teachers are responding to bullying according to the anti-bullying policy in each of their schools, which also could have influenced the distribution of scores.

An interesting aspect related to these "likelihood of responding" variables is the difference in the minimum score for responding to relational bullying when compared to physical and verbal bullying. All of the variables contained a maximum score of 200%, but the minimum score for relational bullying (60%) was considerably lower than the minimum score for both physical bullying (130%) and verbal bullying (140%). This likely resulted for a couple of reasons. First, prior research suggests teachers differ in their views about what types of bullying require responses (Rigby, 2002). For some teachers, bullying is a concern only when someone is seriously harmed physically while other teachers are more sensitive to verbal and relational bullying. Some teachers do not consider indirect or relational bullying as bullying at all (Rigby).

All of the "likelihood of responding" dependent variables (i.e., physical, verbal, relational bullying) were scaled. Therefore, factor analysis and scale reliability tests were conducted for these variables and are discussed below. For this study, principal component factor analyses using Varimax rotation were conducted. The results of factor

analysis for the "likelihood of responding" dependent variables were presented in Table 6 as well as Cronbach's Alpha and factor loadings for each factor. Each composite variable had an Eigen value greater than 1 indicating a single factor.

Table 6

Factor Analysis and Scale Reliability for Dependent Variables

Underlying Theoretical Dimension	Items	Factor Loadings
Factor 1: Likelihood of responding to physical bullying		Cronbach's Alpha = .773
	Using the scale below, how likely are you to respond to this type of behavior (i.e., hitting, kicking, pushing, or shoving)?	.907
	Using the scale below, how likely are you to respond to this type of behavior (i.e., threatening)?	.907
Factor 2: Likelihood of responding to verbal bullying		Cronbach's Alpha = .812
	Using the scale below, how likely are you to respond to this type of behavior (i.e., teasing)?	.919
	Using the scale below, how likely are you to respond to this type of behavior (i.e., name-calling)?	.919
Factor 3: Likelihood of responding to relational bullying		Cronbach's Alpha = .707
	Using the scale below, how likely are you to respond to this type of behavior (i.e., being left out)?	.881
	Using the scale below, how likely are you to respond to this type of behavior (i.e., spreading rumors/gossip)?	.881

DeVellis (2003) suggests a factor loading of .65 or higher is considered strong. As Table 6 shows, factor loadings for each of the dependent variables were over .65. Cronbach's alpha for Factors 1 and 3 were greater than .7, which is considered acceptable and Cronbach's alpha for Factor 2 was greater than .8, which is very good (DeVellis).

Thus, each theoretical dimension loaded as a unitary construct and the scaled items were used in subsequent analysis.

Descriptive Statistics for Independent Variables

Several scaled independent variables also were included in this study (i.e., "perceived seriousness," "policy," and "support"). Similar to the process for specifying the scaled dependent variables, perceived seriousness was further dissected to correspond to the different types of bullying. Thus, three scaled independent variables were created: "perceived seriousness of physical bullying," "perceived seriousness of verbal bullying," and "perceived seriousness of relational bullying." These variables are represented in Table 7 as "physical seriousness," "verbal seriousness," and "relational seriousness."

As previously discussed, respondents were given six definitional statements within the survey which represented three types of bullying. Recall that two statements were provided for physical, verbal, and relational bullying. Respondents were then prompted, "Using the scale below, how seriously do you rate this behavior?" and instructed to record their score on an interval level scale form 0-100%. A score of 0% corresponded to the phrase *Not at all*, a score of 50% corresponded to the phrase *Moderately Serious*, and a score of 100% corresponded to the phrase *Very Serious*. Respondents' scores for each type of bullying behavior were then added together to form an interval level scale from 0 - 200%.

Table 7

Descriptive Statistics for Independent Variables (n=134)

Independent Variable Name	n	Coding	Mean	Median	SD	Minimum	Maximum
Physical Seriousness	130	0-200%	169.69	180	33.62	20	200
Verbal Seriousness	133	0-200%	174.96	180	29.48	30	200
Relational Seriousness	126	0-200%	159.68	170	36.42	30	200
Policy	125	0-400%	331.94	350	56.85	120	400
Support	131	0-500%	405.40	420	71.64	200	500
Total Training Hours	130		3.808	3	4.5865	0	30

Table 7 displays both the mean and median scores for each of these "perceived seriousness" variables. The distribution for each of these variables was negatively skewed. The cluster of scores near the higher end of the scale was expected given the fact that teachers were aware they were being asked to respond to a survey about bullying. What was rather interesting was the range of scores for each variable. "Physical seriousness" had a range of 20 - 200% and both "verbal seriousness" and "relational seriousness" had ranges from 30 - 200%. Consistent with prior research (Rigby, 2002), these findings showed that teachers in this sample differed in their perceptions about the seriousness of bullying behaviors.

Whether teachers were aware of anti-bullying policies within their schools was previously reported to assist in providing a framework with which to view the more analytical results. A scale for "policy" also was created as an independent variable. Four items were constructed as interval level measures, each with a possible range of 0 - 100% (i.e., familiarity, satisfaction, effectiveness, and consistent enforcement of policy). Scores from these four items were then combined to form a final "policy" scale with a possible range of 0 - 400%. The mean score for the final "policy" scale was 331.94%

and the median score was 350%, indicating a skewed distribution. Individual scores ranged from 120 - 400%.

Similar to the process outlined above for the "policy" scale, another scale was created as an independent variable to measure teachers' perceptions of "support." Five items were constructed as interval level measures, each with a possible range of 0 - 100% (i.e., support from other teachers, vice principal/principal, school board/district, students, and parents). Scores from these five items were then combined to form a final "support" scale with a possible range of 0 - 500%. The mean score for the final "support" scale was 405.40% and the median score was 420%, which indicates a skewed distribution. Individual scores ranged from 200 - 500%.

The variable "total training hours" also was included in this study and referred to the number of hours teachers had been trained at their school during the last academic year (2008 - 2009). Table 7 shows the number of hours teachers were trained ranged from 0 to 30 hours. The mean score for this variable was 3.808 hours and the median score was 3 hours. Descriptive statistics were previously discussed regarding whether teachers had received training since being hired at their school and whether they would like to receive additional training for responding to bullying. As mentioned, those items were included to assist with grounding the study. The variable "total training hours" examined the influence of training towards teachers' responses to bullying.

Since "perceived seriousness," "policy," and "support" were scaled items, factor analysis and scale reliability tests were conducted for these variables and are discussed below. The results are presented in Table 8, along with results for the Cronbach's Alpha and factor loadings for each theoretical dimension.

Table 8

Factor Analysis and Scale Reliability for Independent Variables

Underlying Theoretical Dimension	Items	Factor Loadings
Factor 1: Perceived seriousness of physical bullying		Cronbach's Alpha = .556
	Using the scale below, how seriously do you rate this behavior (i.e., hitting, kicking, pushing, or shoving)?	.844
	Using the scale below, how seriously do you rate this behavior (i.e., threatening)?	.844
Factor 2: Perceived seriousness of verbal bullying		Cronbach's Alpha = .913
	Using the scale below, how seriously do you rate this behavior (i.e., teasing)?	.959
	Using the scale below, how seriously do you rate this behavior (i.e., name-calling)?	.959
Factor 3: Perceived seriousness of relational bullying		Cronbach's Alpha = .860
	Using the scale below, how seriously do you rate this behavior (i.e., being left out)?	.938
	Using the scale below, how seriously do you rate this behavior (i.e., spreading rumors/gossip)?	.938
Factor 4: Policy		Cronbach's Alpha = .791
	Using the scale below, how familiar are you with the school's anti-bullying policy?	.758
	Using the scale below, how satisfied are you with the school's anti-bullying policy?	.873
	Using the scale below, how effective is your school's anti-bullying policy?	.853
	Using the scale below, how consistent are you in enforcing your school's anti-bullying policy?	.632
Factor 5: Support		Cronbach's Alpha = .798
	When responding to bullying, other teachers support my responses.	.767
	When responding to bullying, the vice principal/principal supports my responses.	.737
	When responding to bullying, the school board/school district supports my responses.	.738
	When responding to bullying, students support my responses.	.812
	When responding to bullying, parents support my responses.	.722

Each theoretical dimension loaded as a unitary construct and each composite variable had an Eigen value greater than 1. All of the factor loadings for the independent variables in Table 8 were greater than .65 except for the fourth item under Factor 4: Policy (i.e., Using the scale below, how consistent are you in enforcing your school's anti-bullying policy?). However, this item had a factor loading of .632, which was very close to .65. Inclusion of this item still resulted in the identification of this dimension as a unitary construct with an Eigen value greater than 1. In addition, Cronbach's alpha was .791 for this factor. Conceptually it was decided to keep this item as it was determined that consistency in enforcing policy is likely related to perceptions of familiarity, satisfaction, and effectiveness. Furthermore, there may be reasons as to why teachers would not consistently enforce policy even though they are familiar, satisfied, and perceive it to be effective. For example, certain contextual factors related to an incident may lead teachers to perceive the policy as too punitive for some situations.

One item was removed from the "policy" scale that asked respondents, "Using the scale below, how involved were you in developing your school's anti-bullying policy?" Inclusion of this item resulted in two unitary constructs, both with Eigen values over 1. The item-total correlation for this item was .368, which was less than the .4 cut-off. Scores for this item ranged from 0 - 100%, indicating teachers were either not involved at all with the development of policy at their schools or very involved. Upon further examination, the mean score for this variable was 39.13% and the median score was 30%. This reveals a positively skewed distribution. In other words, a large number of scores were clustered around the lower end of the scale. From several teachers' comments on the surveys, the indication was that few teachers within each school were

asked or chosen to serve on committees for developing anti-bullying policies for their respective schools. Thus, teachers or administrators within each school select a few members of the faculty to serve on these committees.

Another interesting finding from factor analyses of the independent variables was the Cronbach's alpha for "perceived seriousness of physical bullying." Analysis revealed a unitary construct, an Eigen value greater than 1, and item-total correlations greater than .4. However, the Cronbach's alpha was only .556. A Cronbach's alpha less than .6 is considered weak. This may have occurred for a few reasons. First, the sample size is low and factor patterns emerging from a small sample size are less stable than those obtained from a larger sample (DeVellis, 2003). Second, if factor analysis yields one factor that contains dissimilar items, then that factor must be considered with some caution as an indicator of a latent variable. DeVellis states that factor analysis "can only find the structure accounting for associations among the items analyzed – it will not necessarily reveal the nature of phenomena per se" (p. 127). Theoretically speaking, some respondents may have considered *actual* acts of hitting, kicking, pushing, or shoving unlike *threats* of these physical acts. While these behaviors may be considered dissimilar, they are both contained within definitions for physical bullying. Furthermore, the factor loadings for both items related to Factor 1 were .844, which is considered very good (DeVellis). Therefore, both items were kept for this factor. The following section provides a discussion of the multiple regression analyses.

Multiple Regression Analysis

Bivariate analyses were conducted prior to regression analysis. This type of analysis has limited ability for making predictions and drawing conclusions about

hypotheses. However, after reviewing the correlation matrices, it is important to mention that the variables "years teaching" and "age" were strongly associated (r = .667, $p \leq .01$). A strong, positive, significant association was expected for these two variables. Obviously, "age" increases with "consecutive years teaching." For this reason, age was excluded from the regression models and "years teaching" was used. Conceptually, it was decided that professional experiences was a better predictor of the dependent variables than chronological age. Retaining both for analyses could cause problems with multicollinearity.

Regression procedures were split into three models for the dependent variable "likelihood of responding." Thus, the dependent variable for each model corresponded to the different types of bullying (i.e., physical, verbal, and relational). The independent variables remained the same for each model. Each OLS regression model was used for testing hypotheses 3, 5, 7, 9, 11, and 13 (see pages 36 – 38).

Table 9

Model 1: Likelihood of Responding to Physical Bullying (n=134)

Independent Variable	Unstandardized Slopes (SE)	Standardized Coefficients (Beta)	*t*
Constant	159.914 (9.645)		16.58
Perceived Seriousness	.116 (.031)	.343**	3.717
Grade Teaching	-.568 (2.639)	-.023	-.215
Years Teaching	.067 (.118)	.053	.570
Training	-.095 (.233)	-.038	-.409
Policy	.014 (.028)	.063	.480
Support	.025 (.022)	.135	1.135

R-square = .173
F = 3.662**
Standard Error (SE) = 11.083

NOTE: **Significant at the .01 level

Table 9 displays the findings from Model 1, which examined the likelihood of responding to physical bullying. The F-statistic for this model is 3.662 and is significant at the .01 level. The null hypothesis for the F-test states that all slopes in the regression equation are equal to zero. A significant F-score provides evidence that at least one of the slopes (i.e., unstandardized regression coefficients) in the regression equation does not equal zero. In other words, at least one independent variable in the model is statistically significant.

The R-square statistic reports "the proportion of explained variance in the dependent variable that is accounted for by the independent variables" (Lewis-Beck, 1980, p. 22). The R-square statistic for this model is .173. This indicates that the independent variables included in this model accounted for 17% of the explained variance for the likelihood of responding to physical bullying. Another way to express this finding is to state that 17% of prediction error was reduced when taking into account the independent variables for this model rather than using the mean score to predict the likelihood of responding to physical bullying.

The slope indicates the average change in the dependent variable with a one-unit increase in the independent variable when controlling for the influence of the remaining independent variables included in the model. As we can see from Table 9 above, the slope for the independent variable "perceived seriousness" was the only statistically significant variable in this model. The slope for "perceived seriousness" was .116. Thus, a one unit increase in the independent variable "perceived seriousness" corresponded with a .116 increase in the dependent variable "likelihood of responding to physical

bullying." This suggests that teachers who perceived physical bullying as more serious were more likely to respond to physical bullying.

Standardized regression coefficients, or Beta weights, provide standardized values for slopes. The Beta weight for "perceived seriousness" was .343. These values are standardized to allow for the comparison of strength across independent variables. For this model, "perceived seriousness" was the only significant variable. Thus, no comparison of Beta weights was possible. In addition, tolerance statistics and variance inflation factors were examined to test for multicollinearity. According to Mertler and Vannatta (2005), a tolerance statistic greater than .10 is acceptable. Equally, a variance inflation factor (VIF) value of less than 4 is acceptable. Multicollinearity was not a concern for Model 1 as tolerance statistics for the independent variables were greater than .10 and VIFs were less than 4.

Table 10

Model 2: Likelihood of Responding to Verbal Bullying (n=134)

Independent Variable	Unstandardized Slopes (SE)	Standardized Coefficients (Beta)	*t*
Constant	133.204 (12.251)		10.873
Perceived Seriousness	.234 (.043)	.465**	5.384
Grade Teaching	-3.033 (3.159)	-.095	-.960
Years Teaching	.250 (.144)	.149	1.744
Training	-.252 (.283)	-.078	-.892
Policy	.009 (.034)	.031	.257
Support	.033 (.027)	.135	1.224

R-square = .287
F = 7.097**
Standard Error (SE) = 13.405

NOTE: **Significant at the .01 level

Table 10 displays the findings from Model 2, which examined the likelihood of responding to verbal bullying. The F-statistic for this model was 7.097 and was significant at the .01 level. Thus, at least one independent variable in the model was statistically significant. The R-square statistic for this model was .287. Therefore, the independent variables included in this model accounted for 28.7% of explained variance for the "likelihood of responding to verbal bullying." Identical to the first model, the slope for the independent variable "perceived seriousness" was the only significant variable. The slope was .234, which indicated that teachers who perceived verbal bullying as more serious were more likely to respond to verbal bullying. The Beta weight was .465 although comparison of Beta weights was again not possible. Also, multicollinearity was not a concern for Model 2.

Table 11

Model 3: Likelihood of Responding to Relational Bullying (n=134)

Independent Variable	Unstandardized Slopes (SE)	Standardized Coefficients (Beta)	*t*
Constant	92.106 (19.923)		4.623
Perceived Seriousness	.438 (.074)	.488**	5.951
Grade Teaching	-21.700 (5.587)	-.330**	-3.884
Years Teaching	.436 (.251)	.127	1.735
Training	-.199 (.554)	.027	.359
Policy	-.031 (.061)	-.053	-.497
Support	.055 (.049)	.107	1.109

R-square = .500
F = 16.690**
Standard Error (SE) = 23.359

NOTE: **Significant at the .01 level

Table 11 displays the findings from Model 3, which examined the likelihood of responding to relational bullying. The F-statistic for this model was 16.690 ($p \leq .01$).

Thus, at least one independent variable in the model was statistically significant. The R-square statistic for this model was .500. Hence, the independent variables included in this model accounted for 50% of the explained variance for the likelihood of responding to relational bullying.

Two variables were significant in this model: "perceived seriousness" and "grade teaching." The slope for "perceived seriousness" was .438 and the slope for "grade teaching" was -21.700. Similar to physical and verbal bullying, teachers who perceived relational bullying as more serious were more likely to respond to relational bullying. "Grade teaching" was coded dichotomously (Elementary = 0; Middle/High = 1). The slope for "grade teaching" indicated that elementary school teachers were more likely to respond to relational bullying than middle/high school teachers were for this sample. The Beta weight for "perceived seriousness" was .488 and the Beta weight for "grade teaching" was -.330. Although Beta weights were relatively close to one another, the small difference indicated that "perceived seriousness" had a slightly stronger effect on the likelihood of responding to relational bullying than "grade teaching." Multicollinearity was not a concern for Model 3 as well.

Summary of Hypotheses Tests for "Likelihood of Responding"

Hypotheses related to the dependent variable "likelihood of responding to bullying" were tested using three OLS regression models. Results are presented in Table 12. Column one identifies which hypothesis statements were tested using OLS regression. The remaining three columns identify whether hypothesis statements were supported or not in each of the three models. An "X" indicates the hypothesis statement

was supported in the corresponding model and a dash (-) indicates the hypothesis was not supported by that particular model.

Table 12

Hypotheses for Likelihood of Responding to Bullying

Hypothesis number	**Model 1 (Physical bullying)**	**Model 2 (Verbal bullying)**	**Model 3 (Relational bullying)**
H_a (3)	-	-	-
H_a (5)	-	-	X
H_a (7)	X	X	X
H_a (9)	-	-	-
H_a (11)	-	-	-
H_a (13)	-	-	-

Hypothesis one stated that "male teachers are more likely to respond to bullying than female teachers." Rodriguez (2002) previously surveyed twenty teachers in two elementary schools and reported that male teachers were more likely to select a more aggressive disciplinary approach toward male students and female teachers were more consistent with their responses to both male and female students. This study contained very few male teachers (8.3%), which were not enough to test this hypothesis statement.

Several hypotheses were not supported in any of the three OLS regression models: hypotheses three, nine, eleven, and thirteen. Hypothesis three stated that "veteran teachers are more likely to respond to bullying than beginning or experienced teachers." Hypothesis nine stated that "teachers are more likely to respond to bullying if there is a policy." Hypothesis eleven stated "teachers were more likely to respond to bullying if they receive training." Last, hypotheses thirteen stated that, "teachers were more likely to respond to bullying if they received support."

Hypothesis five received minimal support as it was supported in one OLS regression model. Hypothesis five stated that, "teachers who teach lower grade levels are more likely to respond to bullying than teachers who teach higher grades." Hypothesis five was not supported in Model 1 (i.e., likelihood of responding to physical bullying) or Model 2 (i.e., likelihood of responding to verbal bullying). However, hypothesis five was supported in Model 3 (i.e., likelihood of responding to relational bullying). Hypothesis seven stated that "teachers who perceive bullying to be more serious are more likely to respond." This hypothesis statement was supported in all three OLS regression models indicating strong support for hypothesis seven for this study. Further discussion of these results is presented in Chapter V.

Logistic Regression Analysis

The next section describes the results for the logistic regression analyses. Logistic regression was used in this study to determine the relationships between independent variables and the dichotomous dependent variable "typical response." Tables 13 - 18 present two models within each table: the "least serious response" and "most serious response" to each of the behaviors contained within the six definitional statements. Each table presents the "least serious response" on the left side of the table and the "most serious response" on the right side of the table.

Table 13 presents the findings for Models 1 and 2, which analyzed teachers' typical "least" and "most serious" responses for physical bullying that included hitting, kicking, pushing, or shoving. Model 1 represented logistic regression results for the variable "least serious response to physical bullying (hit, kick, push, or shove)." Table 13 shows that Model 1 is statistically significant and the model chi-square was 17.916 ($p \leq$

.01). The Nagelkerke R Square statistic provides a logistic analogy to the R Square statistic in OLS regression. This was examined in conjunction with the model chi square to establish the amount of variance explained for the model. The Nagelkerke R-square for Model 1 was .206, which suggested that 20.6% of the variance for the dependent variable was explained with the independent variables included in Model 1.

Table 13

Logistic Regression Results for Physical Bullying (hit, kick, push, shove) (n=134)

	Least Serious Response (Model 1)				**Most Serious Response (Model 2)**			
Variable	B	SE	Wald	Exp (B)	B	SE	Wald	Exp (B)
Seriousness	.015	.008	3.906*	1.015	.021	.007	7.973**	1.021
Grade Teaching	1.237	.546	5.140*	3.446	1.288	.552	5.434*	3.624
Years Teaching	-.027	.025	1.214	.973	-.032	.023	1.940	.968
Training	.127	.053	5.665*	1.135	.062	.050	1.550	1.064
Policy	.001	.006	.033	1.001	.000	.006	.003	1.000
Support	-.006	.004	1.713	.994	.000	.004	.049	.999
-2 Log Likelihood = 126.290					-2 Log Likelihood = 133.352			
Model Chi Square = 17.916**					Model Chi Square = 18.558**			
Nagelkerke R Square = .206					Nagelkerke R Square = .207			

NOTE: *Significant at .05 level
**Significant at the .01 level

Three independent variables were statistically significant in this model: "perceived seriousness of physical bullying," "grade teaching," and "total training hours." The Wald statistic was used to determine the statistical significance of each coefficient in the model. The null hypothesis being tested is that the coefficient is equal to 0, meaning the independent variable had no effect. A Wald statistic that is statistically significant ($p \leq .05$) allows for the rejection of the null hypothesis and it can be concluded that the association between the dependent and independent variable likely exists. Wald statistics for these three independent variables in Model 1 indicated that

each variable was statistically significant ($p \leq .05$). For Model 1, "perceived seriousness of physical bullying" was significantly associated with whether teachers chose an informal or formal response when responding to bullying (B = .015, $p \leq .05$). Thus, a .015 unit increase in the natural log of the odds of the dependent variable was associated with a one-unit change in "perceived seriousness of physical bullying." However, the exponentiated coefficient, shown as Exp (B) in Table 13, is reported for explanatory purposes for logistic regression analysis.

The Exp (B) statistic represents the ratio-change in the odds for a one-unit change in the predictor. In other words, "the logistic regression coefficient does not tell the change in the probability of the dependent variable for a one-unit change in the independent variable, but rather the change in the natural log of the odds of the dependent variable occurring that is associated with a one-unit change in the independent variable" (Bachman & Paternoster, 2004, p. 565). The Exp (B) for "perceived seriousness" was 1.015. This suggested there was a 1.5% increase in the natural log of the odds for choosing a formal response that is associated with a one-unit increase in "perceived seriousness of physical bullying." Simply put, teachers were more likely to choose a formal response when physical bullying that involves hitting, kicking, pushing, or shoving is perceived to be more serious.

The Exp (B) for "grade teaching" was 3.446. This suggested there was a 244.6% increase in the natural log of the odds for choosing a formal response that was associated with the independent variable. This variable was coded dichotomously. Thus, rather than interpret this as a one-unit increase in the independent variable, it was interpreted as a change from the 0 category (i.e., elementary school teachers) to the 1 category (i.e.,

middle/high school teachers). Therefore, this association suggested that middle/high school teachers were more likely to choose a formal response for physical bullying that includes hitting, kicking, pushing, or shoving than elementary school teachers.

The Exp (B) for the independent variable "total hours training" was 1.135. This suggested there was a 13.5% increase in the natural log of the odds for choosing a formal response that was associated with a one-unit increase in "total training hours." In other words, teachers who have received more training for responding to bullying were more likely to choose a formal response for physical bullying that involves hitting, kicking, pushing, or shoving.

Model 2, also in Table 13, displays logistic regression results for the variable "most serious response to physical bullying (hit, kick, push, or shove)." The model chi-square statistic for Model 2 was 18.558 ($p \leq .01$) and was statistically significant. The Nagelkerke R-square for Model 2 was .207, which suggested that 20.7% of the variance for the dependent variable was explained with the independent variables included in Model 2.

Two independent variables were statistically significant: "perceived seriousness of physical bullying," and "grade teaching." Wald statistics for these two independent variables indicated that each variable was statistically significant. "Perceived seriousness of physical bullying involving hitting, kicking, pushing, or shoving" was statistically significant at the .01 level and "grade teaching" was statistically significant at the .05 level. The Exp (B) for "perceived seriousness" in Model 2 was 1.021. This suggested there was a 2.1% increase in the natural log of the odds for choosing a formal response that is associated with a one-unit increase in "perceived seriousness of physical bullying."

Thus, teachers were more likely to choose a formal response when physical bullying that involves hitting, kicking, pushing, or shoving is perceived to be more serious. The Exp (B) for "grade teaching" was 5.434. This showed there was a 443.4% increase in the natural log of the odds for choosing a formal response that is associated with "grade teaching." This association showed that middle/high school teachers were more likely to choose a formal response as for physical bullying that includes hitting, kicking, pushing, or shoving.

Table 14

Logistic Regression Results for Physical Bullying (threaten) (n=134)

	Least Serious Response (Model 3)				**Most Serious Response (Model 4)**			
Variable	B	SE	Wald	Exp (B)	B	SE	Wald	Exp (B)
Seriousness	.006	.007	.799	1.006	.008	.006	1.724	1.008
Grade Teaching	.752	.506	2.211	2.122	.615	.541	1.292	1.849
Years Teaching	.020	.023	.777	1.020	.013	.024	.284	1.013
Training	.064	.046	1.953	1.067	-.007	.044	.026	.993
Policy	-.005	.006	.803	.995	-.010	.006	2.649	.990
Support	-.005	.004	1.276	.995	.003	.004	.455	1.003
-2 Log Likelihood = 134.956					-2 Log Likelihood = 132.217			
Model Chi Square = 13.837*					Model Chi Square = 9.059			
Nagelkerke R Square = .161					Nagelkerke R Square = .110			

NOTE: *Significant at .05 level

Models 3 and 4 are presented in Table 14. Table 14 presents logistic regression results for physical bullying that includes threatening. The model chi-square statistic for Model 2 was 13.837 ($p \leq .05$) and the Nagelkerke R-square was .161. This indicates the model was statistically significant and 16.1% of the variance was explained. Although, upon further examination, Table 14 shows that none of the independent variables were statistically significant in Model 3. Also, neither the model chi-square statistic nor any of the independent variables were statistically significant in Model 4.

Table 15

Logistic Regression Results for Verbal Bullying (tease) (n=134)

	Least Serious Response (Model 5)				**Most Serious Response (Model 6)**			
Variable	B	SE	Wald	Exp (B)	B	SE	Wald	Exp (B)
Seriousness	.018	.018	1.034	1.019	.017	.011	2.376	1.017
Grade Teaching	1.127	.923	1.490	3.085	1.149	.595	3.730	3.156
Years Teaching	.063	.039	2.619	1.065	.047	.026	3.174	1.048
Training	.075	.072	1.080	1.078	-.005	.062	.005	.995
Policy	-.013	.010	1.902	.987	-.004	.006	.387	.996
Support	.005	.008	.410	1.005	.004	.005	.618	1.004
-2 Log Likelihood = 55.480					-2 Log Likelihood = 102.849			
Model Chi Square = 11.540					Model Chi Square = 15.062*			
Nagelkerke R Square =.218					Nagelkerke R Square = .195			

NOTE: *Significant at .05 level
**Significant at the .01 level

Table 15 presents the findings for logistic regression for teachers' typical "least" and "most serious" responses for verbal bullying that includes teasing. Models 5 and 6 are presented in Table 15. Table 15 shows that neither the model chi-square statistic nor any of the independent variables were statistically significant in Model 5. The model chi-square statistic for Model 6 was statistically significant ($p \leq .05$) with a value of 15.062. The Nagelkerke R-square was .195, which suggested that 19.5% of the variance was explained in this model. Similar to Model 3, none of the independent variables were statistically significant in Model 6.

However, it is important to mention the independent variable "grade teaching" was very close to being statistically significant ($p = .053$) in Model 6. The Exp (B) for "grade teaching" was 3.156. This suggested there was a 215.6% increase in the natural log of the odds for choosing a formal response that is associated with "grade teaching."

This statistic may have been close enough to statistical significance to influence the model chi-square statistic.

Table 16

Logistic Regression Results for Verbal Bullying (called names) (n=134)

	Least Serious Response (Model 7)				**Most Serious Response (Model 8)**			
Variable	B	SE	Wald	Exp (B)	B	SE	Wald	Exp (B)
Seriousness	.037	.024	2.448	1.038	.008	.010	.687	1.009
Grade Teaching	2.5151	.054	5.700*	12.368	1.108	.599	3.430	3.029
Years Teaching	.040	.040	1.021	1.041	.044	.027	2.691	1.045
Training	.099	.074	1.800	1.104	.024	.055	.188	1.024
Policy	.001	.009	.022	1.001	.001	.007	.012	1.001
Support	-.002	.008	.041	.998	.002	.005	.161	1.002
-2 Log Likelihood = 50.142					-2 Log Likelihood = 102.063			
Model Chi Square = 16.687*					Model Chi Square = 10.270			
Nagelkerke R Square =.310					Nagelkerke R Square = .140			

NOTE: *Significant at .05 level

Table 16 displays Models 7 and 8, which analyzed teachers' typical "least" and "most serious" responses to verbal bullying that includes name-calling. The model chi-square statistic for Model 7 was 16.687 ($p \leq .05$) and the Nagelkerke R-square was .310. This suggested that 31% of the variance was explained in this model. The independent variable "grade teaching" also was statistically significant ($p \leq .05$) in Model 7. The Exp (B) for "grade teaching" was 5.700, which suggested there was a 470% increase in the natural log of the odds for choosing a formal response that is associated with "grade teaching." This finding suggested that middle/high school teachers were more likely to choose a formal response for verbal bullying that included name calling. Neither the model chi-square statistic nor any of the independent variables were statistically significant in Model 8.

Table 17

Logistic Regression Results for Relational Bullying (left out) (n=134)

	Least Serious Response (Model 9)				**Most Serious Response (Model 10)**			
Variable	B	SE	Wald	Exp (B)	B	SE	Wald	Exp (B)
Seriousness	.024	.023	1.165	1.025	.026	.019	1.979	1.026
Grade Teaching	2.618	1.762	2.207	13.705	.717	1.121	.410	2.049
Years Teaching	.079	.064	1.501	1.082	.025	.050	.259	1.026
Training	.074	.116	.403	1.077	.025	.081	.095	1.025
Policy	.026	.016	2.615	1.026	.011	.011	1.082	1.011
Support	-.034	.016	4.557*	.967	-.021	.010	4.917*	.979
-2 Log Likelihood = 23.652					-2 Log Likelihood = 38.017			
Model Chi Square = 10.257					Model Chi Square = 7.979			
Nagelkerke R Square =.338					Nagelkerke R Square =.206			

NOTE: *Significant at .05 level

Table 17 presents logistic regression results for teachers' typical "least" and "most serious" responses to relational bullying that includes students being left out. Models 9 and 10 are presented in Table 17. The independent variable "support" was statistically significant ($p \leq .05$) in both Model 9 and Model 10. The Exp (B) for "support" in Model 9 was .967. This suggested there was a 3.3% decrease in the natural log of the odds for choosing a formal response that was associated with teachers' perceptions of "support." The Exp (B) for "support" in Model 10 was .979. This suggested there was a 2.1% decrease in the natural log of the odds for choosing a formal response that was associated with teachers' perceptions of "support." For interpretation purposes, this suggested that an increase in teachers' perceptions of support corresponded with the likelihood they would choose an informal response when responding to students leaving another student out of a peer group. However, the model chi-square statistic was not statistically significant for either model.

Table 18

Logistic Regression Results for Relational Bullying (rumors/gossip spread) (n=134)

	Least Serious Response (Model 11)				**Most Serious Response (Model 12)**			
Variable	B	SE	Wald	Exp (B)	B	SE	Wald	Exp (B)
Seriousness	.013	.011	1.451	1.013	.019	.011	3.226	1.019
Grade Teaching	1.205	.707	2.905	3.338	1.528	.642	5.662*	4.608
Years Teaching	.032	.031	1.111	1.033	.056	.028	4.023*	1.058
Training	.072	.060	1.434	1.074	.048	.057	.689	1.049
Policy	-.002	.007	.051	.998	-.001	.007	.037	.999
Support	-.008	.006	1.557	.992	-.006	.006	.959	.994
-2 Log Likelihood = 78.239					-2 Log Likelihood = 89.255			
Model Chi Square = 11.060					Model Chi Square = 18.070**			
Nagelkerke R Square =.175					Nagelkerke R Square =.248			

NOTE: *Significant at .05 level
**Significant at the .01 level

Table 18 shows the logistic regression results for Models 11 and 12. Models 11 and 12 analyzed teachers' typical "least" and "most serious" responses to relational bullying that includes students spreading rumors or gossip. As can be seen, neither the model chi-square statistic nor any of the independent variables were statistically significant in Model 11. Model 12 however, was statistically significant and the Nagelkerke R-square was .248, which suggested that 24.8% of the variance was explained in this model.

Two independent variables were statistically significant: "grade teaching" ($p \leq .05$) and "years teaching" ($p \leq .05$) in Model 12. The Exp (B) for "grade teaching" was 4.608, which suggested there was a 360.8% increase in the natural log of the odds for choosing a formal response that is associated with "grade teaching." This finding suggested that middle/high school teachers were more likely to choose a formal response for relational bullying that included spreading rumors or gossip. The Exp (B) for "years

teaching" was 1.058, which suggested there was a 5.8% increase in the natural log of the odds for choosing a formal response that corresponds with "years teaching." This finding suggested that teachers with more professional experiences were more likely to choose a formal response for relational bullying that included spreading rumors or gossip.

Summary of Hypotheses Tests for "Typical Response"

Hypotheses for the "type of response" were tested using twelve logistic regression models. The results are presented in Table 19. Column one identifies the model number. The remaining six columns identify which hypothesis statements were tested with the corresponding models. An "X" indicates the hypothesis statement was supported in the corresponding model and a dash (-) indicates the hypothesis was not supported by that particular model.

Table 19

Hypotheses for Typical Response

Model number	**H_a (4)**	**H_a (6)**	**H_a (8)**	**H_a (10)**	**H_a (12)**	**H_a (14)**
1	-	-	X	-	X	-
2	-	-	X	-	-	-
3	-	-	-	-	-	-
4	-	-	-	-	-	-
5	-	-	-	-	-	-
6	-	-	-	-	-	-
7	-	-	-	-	-	-
8	-	-	-	-	-	-
9	-	-	-	-	-	X*
10	-	-	-	-	-	X*
11	-	-	-	-	-	-
12	X	-	-	-	-	-

*Indicates the model chi-square was not statistically significant

Hypothesis two stated that "male teachers are more likely to select a more punitive response than female teachers." As was the case with hypothesis one, there were

not enough male teachers (8.3%) to test this hypothesis statement. Additionally, a few hypotheses were not supported by any of the twelve logistic regression models: hypotheses six, ten, and fourteen. Hypothesis six stated that "teachers who teach lower grade levels are more likely to select a more punitive response than teachers who teach higher grade levels." Hypothesis ten stated "teachers are more likely to select a more punitive response if there is a policy." Hypothesis fourteen stated that "teachers are less likely to select a more punitive response if they receive support." It is interesting to note that the variable "support" was statistically significant when analyzing teachers' typical "least" (Model 9) and "most serious" (Model 10) responses to relational bullying that included students being left out. However, the model chi-square statistic was not statistically significant for either Model 9 or Model 10. This is indicated in Table 19 with an asterisk.

Hypotheses four, eight, and twelve received minimal support. Hypothesis four stated that "teachers with more experience are more likely to select a more punitive response than beginning or experienced teachers." Hypothesis four was supported in Model 12. However, as can be seen in Table 19, this hypothesis statement was not supported in any of the other eleven models. Therefore, this hypothesis was at best minimally supported in this study. Hypothesis twelve stated that "teachers are more likely to select a more punitive response if they receive training." This hypothesis statement was supported in Model 1. However, Table 19 showed that this hypothesis statement was not supported in any of the other eleven models. Thus, hypothesis twelve also was minimally supported in this study. Hypothesis eight stated that "teachers who perceive bullying to be more serious are more likely to select a more punitive response

than teachers who perceive bullying to be less serious." Hypothesis eight was supported in Models 1 and 2. However, hypothesis eight was not supported in the ten other models.

It also is important to mention that Models 3 and 6 included model chi-square statistics that were statistically significant. However, further examination of these models revealed that none of the independent variables were statistically significant. The next section provides a summary of the findings and analysis. Following this is Chapter V, which includes a more detailed discussion of the findings and conclusions for this study.

Summary

Several independent variables analyzed influenced teachers' responses to bullying. Specifically, "perceived seriousness," and "grade teaching" were shown to have the strongest influence in this study. The variables "training" and "years teaching" had minimal influence towards teachers' responses to bullying as "training" was only statistically significant in Model 1 and "years teaching" in Model 12.

Teachers' perceptions of seriousness was found to be statistically significant in five models overall. "Perceived seriousness" was statistically significant in all three OLS regression models and in two logistic regression models (Models 1 and 2). Thus, teachers' perceptions of seriousness influence teachers' likelihood of responding to physical, verbal, and relational bullying and also influence teachers' responses to physical bullying that involves hitting, kicking, pushing, or shoving.

Findings from analyses also showed that "grade teaching" influenced teachers' responses to bullying as this variable also was statistically significant in five models. "Grade teaching" was statistically significant in OLS regression Model 3, which analyzed

teachers' "likelihood of responding to relational bullying. Likewise, "grade teaching" was statistically significant in logistic regression Models 1, 2, 7, and 12. Logistic regression Models 1 and 2 analyzed teachers' typical "least" and "most serious" response to physical bullying that included hitting, kicking, pushing, or shoving. Model 7 analyzed teachers' typical "least serious" response to verbal bullying that included name-calling and Model 12 analyzed teachers' typical "most serious" response to relational bullying that included spreading rumors or gossip. These findings indicated that middle/high school teachers were somewhat more likely to respond to relational bullying and are more likely to respond formally to certain behaviors, such as hitting, kicking, pushing, or shoving, name-calling, and spreading rumors or gossip than their elementary school counterparts.

Overall, there was strong support for one research hypothesis and minimal to none for others. Hypothesis 7 stated that "teachers who perceive bullying to be more serious are more likely to respond." This hypothesis statement was supported in all three OLS regression models. Thus, the likelihood of responding to physical, verbal, or relational bullying increases as teachers' perceptions of the seriousness of these incidents increases. There also was minimal support for hypothesis 8, which stated that "teachers who perceive bullying to be more serious are more likely to select a more punitive response than teachers who perceive bullying to be less serious." This hypothesis statement was supported for Models 1 and 2, which analyzed the typical "least" and "most serious" responses for physical bullying that involved hitting, kicking, pushing, or shoving. Therefore, we can conclude that, for teachers in this sample, the perceived seriousness of bullying influences the likelihood of responding and, for incidents that

involve physical bullying that includes hitting, kicking, pushing, or shoving, the type of response.

Further discussion of research findings is included in the next chapter. Specifically, information about hypothesis testing and information from the multivariate and logistic regression models are discussed. In addition, limitations and strengths of this study are described as well as directions for future research. Finally, the overall conclusions for this study are presented.

CHAPTER V

DISCUSSION AND CONCLUSIONS

The purpose of this study was to examine individual and organizational factors that influence teachers' responses to bullying. The sample population included teachers within a public school district in a southern state. Data were collected using survey research methods and analyzed through quantitative analysis. This chapter first discusses limitations and strengths related to the research process. Next, a discussion of research findings is presented. Following this section, suggestions for future research are provided. Finally, this chapter ends with concluding thoughts about the completed research study and teachers' responses to bullying.

Strengths and Limitations

The overall purpose of conducting research is to advance the understanding of a specified phenomenon. Contained within this process is the responsibility of providing a discussion of the limitations and strengths of completed research studies. Providing information about limitations and strengths assists researchers with future research designs. This section presents the limitations and strengths that correspond to data collection and analysis.

Strengths

Research about bullying has primarily focused on physical aggression (Espelage & Asidao, 2001). This study included measures for physical, verbal, and relational bullying, which expanded the focus beyond physical aggression. Additionally, very few instruments have been designed to measure bullying behavior specifically (Griffin &

Gross, 2004). The current study utilized Olweus' (1993) definition of bullying to create the definitional phrases used for measurement.

A critical issue in methodology is the time frame of measurement; that is, whether bullying is measured over the past week, month, year, or something similar. Many studies either do not specify the time frame for which respondents are to report or rate experiences of bullying or victimization or use different timeframes. This leaves room for various interpretations on the part of the participant and increases the difficulty for comparing findings across studies. The current study asked teachers about bullying behaviors they witnessed during the previous academic year (i.e., 2008 - 2009).

Much of the research about bullying has focused on students' perspectives or policies about bullying. Thus, the overall strength of this study was the inclusion of certain dependent and independent variables related to teachers' perspectives. The dependent variables for this study were: "likelihood of responding to bullying" and "typical response to bullying." The first dependent variable was further specified to include the "likelihood of responding to physical bullying," the likelihood of responding to verbal bullying," and "the likelihood of responding to relational bullying." Few studies have examined the likelihood of teachers responding to bullying. There also has not been much research that examines teachers' perceptions of bullying or typical responses to bullying.

Several independent variables were included in this study that provided additional contributions to the literature about bullying (i.e., perceived seriousness, policy, training, support). Similar to the points made about the dependent variables utilized for this study, very few studies have included the independent variables that were examined.

Furthermore, the few studies that have included these variables (i.e., "perceived seriousness," "policy," training," and "support") did not measure them in the same way. For example, prior research (Yoon, 2004) has measured perceptions of seriousness at the ordinal level. The current study measured "perceived seriousness" with an interval level scale allowing for more in-depth analysis of the data.

Even rarer has been the inclusion of organizational level variables. One study (Yoon, 2003) was found in the literature review that incorporated organizational level variables. Yoon's (2003) study examined administrative support for teachers in schools. The current study created a scaled variable for examining various types of support. For instance, teachers were asked about their perceptions of support from other teachers, the administration, the school district, students, and parents. An additional scale was created for policy, which asked respondents about their familiarity with policy, satisfaction with policy, perceptions of effectiveness, consistency in enforcement, and involvement with development. These improvements have not only provided a clearer understanding of teachers' perceptions of bullying, but also have given researchers improved measurements for studying the phenomenon of bullying.

Limitations

There were several limitations that impacted the results of this study. First, this study sampled only one public school district. Although this is commonly done when conducting research in schools, it limits the overall generalizability of the results. Replication of this study among teachers within various school districts and within various geographical locations would serve to substantially increase the external validity of these research findings. In addition, the sample contained only thirteen of twenty

schools (see Appendix E) and 134 of 789 teachers in the school district. The response rate for teachers in this sample was 25.8%, which is considered low (Dillman, 2007). Furthermore, the sample primarily contained elementary school teachers (60.8%). However, 23.8% of the sample included middle school teachers and 15.4% were high school teachers. Middle and high school teachers were then combined because there was no statistical difference for any of the variables of interest. Future research should still focus on including more middle and high school teachers as they are likely to encounter different types of bullying than elementary school teachers (Olweus, 1993).

Lack of diversity within the sample also limited the current study. Prior research (Rodriguez, 2002) suggested male teachers respond differently to bullying than female teachers. While the review of the literature was void of any studies about race/ethnicity and teacher type (e.g., regular full-time, part-time, teaching assistant), this study was interested in investigating their influence towards teachers' responses. Due to the lack of diversity within the sample, this study was not able to examine differences in how teachers respond to bullying based on race/ethnicity, gender, or the type of teacher.

When conducting this research, information about the demographics of the sample population of teachers was not available on the school district's website. However, both the student population demographics and characteristics of the geographical region were available and are similar to the demographics of the teacher sample. For instance, 86.1% of the students in the school district in 2007-2008 were white. Similarly, for the year 2007, Census Bureau statistics from the geographic region where the school district was located reported that 89.2% of the population was white.

Discussion of Research Findings

This section provides a discussion of the research findings from the current study. Items related to teachers' professional responsibilities are discussed first. Next, the results from the three OLS regression models are discussed. Then, a discussion of results from the twelve logistic regression models is provided.

Teacher Concerns

Teaching presents many challenges, which include balancing the duties of instructor, social worker, friend, cheerleader, mentor, negotiator, crowd controller, and hallway monitor (O'Brien, n.d.). Therefore, certain items were included in the survey to provide a framework within which to view the larger results. These items measured perceptions of teachers' professional responsibilities, whether teachers witnessed bullying in their schools, whether teachers considered those witnessed behaviors to be bullying, and also provide some general information about training and policy.

Professional Responsibilities

For this sample, curriculum/lesson plan was ranked as the highest concern by more teachers (43.8%) than any of the other concerns. The second and third highest concerns were No child left behind initiatives (28.6%) and bullying (12.5%). Bullying is obviously a concern of teachers. As one teacher commented, "if students don't feel safe, they can't learn." However, bullying was not the highest concern.

This begs the question of just what teachers' responsibilities are. Teachers are viewed as having both professional and legal responsibilities (Feldman, 2007). Professionally, teachers in the U.S. are responsible for students' achievement as the nation's current educational focus has shifted toward accountability. For instance,

policy-makers perceive teachers' roles as operating within a technical domain and perceive teachers as accountable for what occurs academically in their classrooms (Feldman, 2007). This notion is supported by implementation of The No Child Left Behind (NCLB) Act in 2002, which "requires states to create 'challenging' testing standards, test students regularly, and to sanction schools that fail to meet testing benchmarks" (Ryan, 2009, p. 722).

Legally, teachers must also be concerned about what occurs in their classroom as they are considered *in loco parentis*, or "in place of the parent," and can be held liable for students' safety (Feldman, 2007). In a litigious society, lawsuits are lurking behind teachers' and administrators' decisions (Van Patten & Siegrist, 2000). For example, a lawsuit may occur in situations where the school or its personnel fail to respond to a bullying situation that leaves a child harmed by a bully. Additionally, there is the possibility of a lawsuit if a parent feels their child has been falsely classified as a bully and removed from the school environment.

Teachers themselves view their profession as containing both academic and social objectives (Marston, Brunetti, & Courtney, 2004). Teachers desire their students to obtain general knowledge and the ability to apply that knowledge as much as they desire students to develop confidence, self-esteem, respect for others, and the ability to make good decisions. Furthermore, teachers typically express negative attitudes toward bullying, are sympathetic to victims, and support steps to counter bullying (Dake et al., 2003; Rigby, 2002). It is important to remember the multitude of responsibilities (in addition to bullying) that teachers are held accountable for by their school's administrative personnel, by state and federal policy-makers, by students, and by parents.

Attending to these multiple concerns efficiently and effectively will prove to be challenging.

Witnessed Bullying Behavior

Prior research has shown there to be a substantial proportion of undiscovered bullying in schools (see Dake et al., 2003; Dulmus et al., 2004; Espelage & Asidao, 2001; Espelage & Holt, 2001; Griffin & Gross, 2004; McCartney, 2005; Olweus, 1993). Whether teachers observed bullying or not was included in the survey to gauge teachers' perceptions about the amount of bullying behaviors they observed in their respective schools. As Table 4 showed, all of the behaviors included in the survey were witnessed by a majority of teachers in the sample. For example, the bullying behavior witnessed the most by teachers in this sample was physical bullying that included hitting, kicking, pushing, or shoving (93.2%). This was most likely due to the visible nature of physical bullying and its relative capacity for identification. Physical bullying is considered more visible than verbal or relational bullying (Liepe-Levinson & Levinson, 2005; Smokowski & Kopasz, 2005). Ironically, previous research suggests that less than one-third of all incidents reported by students involve physical bullying (Liepe-Levinson & Levinson). In contrast, in the current study relational bullying involving spreading rumors or gossip (64.1%) and physical bullying involving threatening another student (64.2%) were witnessed the least by teachers.

An important feature of bullying is its "essential public nature" (Jeffrey et al., 2001, p. 145). In other words, those who bully tend to do so in front of an audience of their peers. However, teachers often do not observe bullying firsthand as those who bully often target their victims in public, but away from teachers or other school personnel

(Liepe-Levinson & Levinson, 2005). As one teacher in the sample pointed out, "The problem is that high school teachers don't always hear or see it all." Another teacher added, "Teachers are aware of bullying but some of the verbal bullying/exclusion is not heard or seen." Beyond the notion of whether or not teachers witnessed certain behaviors was the additional concern of whether teachers considered those behaviors to be bullying.

Considered Behavior Bullying

For this study, information provided by teachers in the margins of the survey and in the comment box that was provided at the end of the survey offered a more detailed description of their perceptions of bullying in schools. For instance, one teacher commented that the problem is being able to distinguish bullying from conflict, adding that, "all conflict is not bullying." Several other teachers reiterated this sentiment by stating that teachers must differentiate between aggressive behavior, unkindness, rudeness, insensitivity, horseplay, and bullying.

Rough play, or horseplay, has been characterized as a "good-natured" form of interaction common among adolescents, especially young males, and contains different social outcomes than serious fighting (Fagan & Wilkinson, 1998). In many instances, children and adolescents use rough play as a function for determining friend selection and affiliations, the development of fighting skills, and for initial positioning within a social hierarchy. Bullying is more specifically designed to instill dominance and submission into another individual, generally in a humiliating fashion (Kim, Koh, & Leventhal, 2005). In some cases, as children age, playful behavior becomes more intense, purposeful, and consequential. When rough play continues in the form of physical aggression pursuing dominance, it becomes bullying behavior. An example of this might

include two individuals who routinely engage in rough play where one of the two individuals constantly overpowers the other. Dominance and submission may first be decided through rough play; however, the intentions of the behavior and perceptions of those involved may change as social hierarchy becomes more important to children (Fagan & Wilkinson). In other words, what begins as rough play, may transform into bullying over time. Teachers are then expected to recognize within their students when this developmental transition has occurred, which may prove difficult.

Further confounding this issue is that these concerns manifest differently depending on which grade teachers serve. For instance, one teacher in the sample commented that "elementary students by nature respond with what is regarded as bullying behavior with less intent to actually bully." Similarly, another teacher stated that "hitting, kicking, pushing, and shoving can be part of a middle school student's life… it can be a way of saying 'I like you.'"

Bullying and non-bullying are not mutually exclusive categories, meaning it is difficult to distinguish one from the other. Situations in which bullying and non-bullying categories overlap require rather gross and general-purpose explanations in order to attribute the variation to some presumed cause. More importantly, depending on the distribution of incorrectly classified cases, strategies for prevention and intervention may be virtually useless.

The challenge in distinguishing bullying behaviors from non-bullying behaviors adds to its elusive nature. According to the Department of Education (2007), the following concepts are proposed and included by researchers and practitioners within each of their definitions, despite their semantic differences: "bullying involves

intentional, and largely unprovoked, efforts to harm another; bullying can be physical or verbal, and direct and indirect in nature; bullying involves repeated negative actions by one or more against another; and bullying involves an imbalance of physical or psychological power" (p. 6).

As previous research denotes, the overall intent has been to focus on systematic victimization among participants with an imbalance of power or strength (Dake et al., 2003; Dulmus et al., 2004; Griffin & Gross, 2004; Hazler et al. 2001; Hurst, 2005; Olweus, 1993; Smokowski & Kopasz, 2005). However, depending on the type of bullying that occurs or the students who are involved, power or strength may refer to physical, emotional, or mental fortitude. These differences may be difficult for teachers to detect. Still, there must be an imbalance of power or strength between students as two individuals of the same physical, psychological, or social strength who socially interact in an aggressive manner are not considered to be engaged in bullying. Table 20 illustrates teachers' comments about these elements mentioned above.

The information in Table 20 below displayed the number of comments teachers made on surveys about the repeated nature, the contextual significance, and the imbalance of power as they relate to the identification of bullying. Some teachers provided several comments throughout the margins of the survey and others made very few comments. Thus, categories are not mutually exclusive and represent the number of times a comment was made about a particular concern.

Table 20

Teachers Comments about Bullying Behaviors

	Repeated Behavior	**Depends on Situation**	**Imbalance of Power**
Physical (hit, kick, push, shove)	20	10	5
Physical (threaten)	12	1	3
Verbal (tease)	9	4	2
Verbal (called names)	9	3	2
Relational (left out)	6	5	3
Relational (gossip/rumors spread)	6	5	3
Overall	62	28 (30)	18

For example, 20 comments indicated that hitting, kicking, pushing, and shoving could be considered bullying if these behaviors were repeated and did not occur only once. Likewise, 10 comments stated that the situation determined if hitting, kicking, pushing, and shoving was bullying. In addition, 5 comments noted that hitting, kicking, pushing, and shoving were considered bullying only if there was an imbalance of power between students. Overall, 62 comments were made about the repeated nature of bullying for the six definitional statements. Similarly, 30 comments noted that labeling a behavior as bullying depended on the situation. The number in parenthesis represents the total number of comments about the contextual significance as two of the teachers mentioned this as a general comment within the box provided at the conclusion of the survey whereas the other 28 comments were written within the margins of surveys and corresponded to the various types of bullying. Imbalance of power received 18 comments by teachers in the sample. Obviously, the process of labeling particular behaviors as bullying requires certain contextual factors to be present. This is important

considering that, according to conceptual definitions of bullying (e.g., Coloroso, 2005; Kim et al., 2005; Olweus, 1993; Salmivalli, 2001), it is the intention of the perpetrator and the perceived experience of the victim that creates a bullying episode.

Training

Prior research suggested that although teachers feel a responsibility to prevent bullying in classrooms, they often do not feel confident in their abilities to effectively respond (Dake et al., 2003; Rigby, 2002). Furthermore, teachers generally felt as though conditions would only become worse for students if situations were not handled appropriately (Rigby). Given the increased focus on bullying in schools, it was reasonable to assume that teachers had received, and desired, training for responding to such incidents (Gable, Bullock, & Harader, 1995). Table 4 showed that 91% of teachers sampled for this study had received training for responding to bullying since being hired at their school. However, the average teacher in this sample neither agreed nor disagreed when asked if more training was desired. The distribution for this variable was close to normal as the mean score was 58.52%, the median score was 50%, and the modal category was 50%.

Teachers' responses to this item on the survey reflect a high degree of ambivalence. This likely reflects teachers' conflicting perceptions of self-efficacy. Teachers generally believe they are capable of controlling their classroom environments. However, these perceptions of self-efficacy are then met with conflicting considerations as school administrators and others in society (e.g., politicians) continually present teachers with new information about bullying and ways to respond. Information from these external sources interacts with individual perceptions, leaving teachers with

conflicting perceptions about bullying, responding to bullying, and self-efficacy. Thus, many teachers are likely to exhibit ambivalence in their opinions about the need for additional training.

Policy

School personnel generally believe that bullying can be reduced through implementation of an anti-bullying policy (Rigby, 2002). Thus, schools are under considerable pressure to implement anti-bullying policies in their schools. Table 4 showed that 126 teachers out of 134 (94%) responded "yes" to the question, "Does your school have an anti-bullying policy?" The interesting aspect for this finding was the few teachers who responded "no" to this question. The school district that was used for this study had recently created and implemented a comprehensive plan that included a component for the prevention of bullying. Development of this comprehensive plan began in 2007 and it was scheduled for completion by 2008 - 2009, which was during survey distribution.

The mean score for the final "policy" scale was 331.94% and the median score was 350%, individual scores ranging from 120 - 400%. Although policy was not statistically significant in any of the three OLS regression models or twelve logistic regression models, these findings indicated that teachers in this sample felt satisfied with the existing policy, perceived the policy to be effective, and were consistent in enforcing the policy. Teachers may prefer to have an anti-bullying policy in place as this provides them with structure for responding to bullying and, more importantly, assists with liability concerns. However, it does seem reasonable that policy would not be statistically significant. Recall that "perceived seriousness" was statistically significant

in all three OLS models for "likelihood of responding." Teachers will respond to bullying when the event is perceived to be serious enough to warrant a response, regardless of whether there is a policy in the school and regardless of their perceptions of that policy. The next section discusses the various regression models that were included within the analysis.

Regression Analysis

Two broadly specified dependent variables were used for this study: "likelihood of responding to bullying" and "typical response to bullying." As previously discussed, these two dependent variables were further broken down so as to include multiple types of bullying and various types of responses. OLS regression analyses for dependent variables related to the likelihood of responding are presented first. Next, results of logistic regression analysis for dependent variables associated with types of responses are presented.

Dependent Variable: Likelihood of Responding to Bullying

Regression analysis for "likelihood of responding" revealed that perceived seriousness of bullying was statistically significant for all three models. This finding is consistent with prior research, which also has reported perceived seriousness to be significant when responding to various types of bullying (Dake et al., 2003; Glover et al., 2000; O'Brien, n.d.; Rigby, 2002; Yoon, 2004).

It seems logical that perceived seriousness of a bullying situation would be significant when asking teachers about their likelihood of responding. If a situation between two students is perceived to be a serious altercation, then teachers are likely to respond regardless of what grade they teach, how many years they have been teaching,

whether they have been trained, whether there is a policy, or whether there is support. One can assume that teachers might welcome receiving some guidance or assistance for responding to bullying whether it occurs through training, policy, or support. However, the absence of these elements does not deter teachers from responding to bullying, especially if the situation appears serious. Thus, it is not surprising that "perceived seriousness" had the strongest influence on the likelihood that teachers would respond to bullying.

No other variables were statistically significant when analyzing the likelihood of responding to physical or verbal bullying. Conversely, "grade teaching" was found to be statistically significant for the "likelihood of responding to relational bullying" ($b = -21.700$, $p \leq .01$). Since grade teaching was coded dichotomously, and the slope was negative, this finding indicates that elementary school teachers were more likely to respond to relational bullying than were middle/high school teachers.

Younger students are less difficult to observe as they tend to have classes either with one teacher or they change teachers as an entire class. Older students generally interact with multiple teachers and a greater number of students. Thus, it is more difficult for teachers to observe relational bullying among middle or high school students. Furthermore, the seminal definition of bullying provided by Olweus (1993) describes a behavioral interaction rather than a particular individual or behavior. Therefore, the manner in which older students traverse through the school day is much different than it is for elementary school students. Consequential of this notion is that middle/high school teachers have fewer opportunities to observe and respond to students' behavior patterns.

Dependent Variable: Typical Response to Bullying

As previously discussed, this variable was split into two variables: the least serious response and the most serious response. This was done because several respondents marked more than one response on the survey when asked the question, "How would you typically respond to this type of behavior?"

As Table 13 showed, several variables were statistically significant when analyzing teachers' least and most serious responses to physical bullying that involved hitting, kicking, pushing, or shoving. For both teachers' least serious response and most serious response, "perceived seriousness" and "grade teaching" were statistically significant. Similar to the discussion about teachers' likelihood of responding to bullying, it is reasonable to conclude that teachers who perceive bullying incidents to be more serious were more likely to choose a formal response as their least and most serious response when responding to physical bullying that involves hitting, kicking, pushing, or shoving. This type of behavior generally warrants a response that involves parents or administrators because of its physical nature, visibility, and potential to cause harm. It also is reasonable to conclude that middle/high school teachers were more likely to choose a formal response for both their least serious and most serious responses when responding to this type of bullying. As students continue to grow and develop, so do their capacities for physical strength. In other words, their physical maturity increases their capacity to harm others, which is not to imply that they will.

"Training" also was statistically significant for teachers' least serious response to physical bullying that involved hitting, kicking, pushing, or shoving. The more hours of training a teacher received was associated with a greater likelihood of choosing a formal

response. This finding seems reasonable when considering that each school's administration would likely articulate to teachers the necessity for responding to physical acts of bullying more formally, if for nothing more than to have an official record of incidents on file. Considering the nature of liability and the aforementioned litigious aura within our nation, this would be important from an organizational perspective. Overall, these findings conclude that, for teachers in this sample, physical bullying that involved hitting, kicking, pushing, or shoving was perceived as serious behavior and requires a formal response.

Another interesting finding that resulted from logistic regression analysis was that no variables were statistically significant for either the "least serious response" or "most serious response" to physical bullying that involved students threatening other students. This may be due to the philosophical difference of the behaviors analyzed. For instance, the behaviors contained in Models 1 and 2 include *actual* physical acts, whereas the behavior in Models 3 and 4 is the *threat* of a physical act. It was possible that teachers perceived these behaviors differently. For instance, the act of threatening someone may be viewed more consistently as bullying and not influenced as much by perceptions about different degrees of seriousness, policy, support, and so forth. In other words, a threat may always be perceived as serious where as hitting, kicking, pushing, or shoving may be perceived as horseplay.

Likewise, none of the variables were statistically significant when analyzing teachers "least serious" (Model 5) and "most serious" (Model 6) responses to verbal bullying that involved students teasing other students. Once again, the chi-square statistic for Model 6 was statistically significant, but none of the variables were. This also is

likely due to the small sample size. Also, nothing was statistically significant when analyzing teachers' "most serious response" to verbal bullying that involved students being called names (Model 8). Further analysis of verbal bullying that involved name-calling showed that "grade teaching" was statistically significant for the "least serious" response model. Thus, middle/high school teachers were more likely to choose a formal response for this type of behavior than were elementary school teachers. As O'Brien (n.d.) points out, teachers understand that adolescence and pre-adolescence are difficult and confusing stages of development and are willing to allow some misconduct to occur, such as name-calling and cursing. It seems reasonable to assume that older students' increased vocabularies and further advancement within the socialization process likely warranted a formal response in more cases than would occur with elementary school students.

Models 9 and 10 analyzed teachers "least serious" (Model 9) and "most serious" response (Model 10) to relational bullying that involved students being left out of peer groups. What is interesting about these models is that the variable "support" was statistically significant for both models, but neither model was statistically significant. This, again, could have been due to a lack of statistical power for this study. However, these findings are still interesting to ponder. These findings indicated that teachers were likely to choose an informal response for both their "least serious" and "most serious" response to students being left out of peer groups. These findings seem logical as teachers were likely to feel more confident in responding to bullying situations without the assistance of parents or administrators if they perceived to be supported for their responses. Prior research has shown that teachers are more likely to maintain difficult

students in the classroom when they receive assistance from other school professionals (Yoon, 2003). Likewise, Yoon (2004) found that teachers who reported higher levels of self-efficacy in behavior management were more likely to respond to bullying. Thus, it is reasonable to assume that teachers who perceived more support were likely to respond informally. Teachers are typically isolated from other teachers and school personnel at school, making support even more necessary. Receiving support from others provides the confidence that teachers need for responding to bullying.

Table 22 displays the analysis for teachers' least serious (Model 11) and most serious responses (Model 12) to relational bullying that involved students spreading rumors or gossip about another student. Nothing was statistically significant for teachers' "least serious" response to this type of behavior. The variables "grade teaching" and "years teaching" were both statistically significant for teachers' "most serious" response. Thus, middle/high school teachers were likely to choose a formal response to students spreading rumors or gossip about another student as well as teachers with more consecutive years teaching.

This is another difficult behavior for teachers to respond to within a school environment. These findings likely relate to the types of rumors or gossip being spread among students as well as teachers' experience with these types of concerns. For instance, as students continue with the process of socialization and maturation, they will engage in increasingly risky behaviors. Some of them will begin to experiment or try new things, such as sex, drugs, or alcohol. Rumors or gossip about these kinds of behaviors are generally perceived as requiring more formal responses as they relate to a students' overall development. In other words, these behaviors are generally perceived as

behaviors that require a more formal response that involves either parents or administrators.

Regarding "years teaching," teachers with more professional experience may have learned to identify these matters more consistently and may feel more confident in responding. O'Brien (n.d.) found in his study that beginning teachers were less confident and less authoritative due to their lack of experience and were reluctant to intervene until they became more acclimated to their environment. For this sample, 33.1% of the teachers reported teaching seven years or less, 34.6% had taught eight to fourteen years, and 32.3% had been teaching fifteen to thirty-eight years. Thus, teachers with more professional experience may have learned to identify these behaviors more consistently and thereby feel more confident responding.

Summary of Research Findings

Overall, not surprisingly, the findings indicated that teachers' responses to bullying are influenced primarily by perceived seriousness of bullying episodes. Teachers' perceptions of seriousness were statistically significant in all three OLS regression models, which analyzed the likelihood of teachers responding to physical, verbal, and relational bullying. Furthermore, teachers' perceptions of seriousness corresponded to choosing a formal response as their least serious and most serious response to physical bullying that involved hitting, kicking, pushing, or shoving.

These findings support existing literature about the seriousness of bullying. Prior research has shown perceived seriousness to have a strong influence on teachers' responses to bullying (e.g., O'Brien, n.d.; Rigby, 2002; Yoon, 2004). Research also has shown physical bullying as receiving more attention than verbal or relational bullying.

The majority of teachers recognize that bullying occurs in multiple forms, but consider physical bullying as the most significant when compared to verbal and relational bullying and are more likely to respond to physical bullying (Dake et al., 2003; Glover et al., 2000). Oddly enough, physical bullying continues to attract more attention in the school environment despite the widespread attention given to longstanding emotional and social forms of bullying as precursors to school shootings and suicides, despite the rarity of these events (Hazler et al., 2001). This is most likely due to the visible nature of physical bullying and its relative capacity for identification.

Increasing concern for verbal and relational bullying is a logical goal considering research findings that report students' perceptions of these types of bullying as occurring more frequently than physical bullying (Hazler et al., 2001). According to Olweus (1993), it is natural to direct initial attention towards physical bullying. However, students targeted for physical bullying attacks are generally those who already have been victimized by verbal and relational bullying from their peer group. Additionally, the visible nature of physical bullying makes identification and response comparatively easier for teachers than does verbal and relational bullying. The following section discussed directions for future research.

Directions for Future Research

Bullying is clearly a difficult concept to measure; however, the continued use of various definitions of bullying is an important issue that requires further consideration. Ironically, definitional problems exist for bullying in part because of the search for causes of bullying behavior. The enthralling search for causes of behavior typically overshadows the less exciting task of defining research concepts. Unfortunately, the

process of determining what is meant by bullying behavior may actually require that researchers temporarily set aside the search for causes in exchange for this seemingly noteworthy task of defining and describing bullying. One approach may be to ask teachers how they define bullying as they are expected to directly respond to such behaviors.

Future research proposals should consider qualitative inquiry as an approach for understanding bullying. For instance, several teachers commented that it depended on the context when asked about the seriousness of behaviors, the likelihood of responding, their typical response, and whether they considered the behavior bullying or not. Context is essentially a subjective interpretation of an event. In other words, people perceive the same event differently based on their individual development and prior experience. Qualitative inquiry is better suited to explore these subjective interpretations and the content and process that led to their formulation.

In addition, several teachers indicated their schools had a tiered or graduated system for responding to bullying. A qualitative research study would allow more flexibility for exploring different circumstances that warrant different responses. For example, several respondents for this study revealed they might choose several responses (e.g., discuss behavior with student, discuss behavior with class, call parents, and send to detention), but their choices depended on the offense, the students involved, the reactions of others, and more. This also relates to concepts of informal and formal control. For instance, students react differently to various types of sanctions. Whereas some students may require only a phone call to their parents to alter their behavior, other students may require detention or suspension. Essentially, the goal is to alter the student's behavior

and not to create a standard punishment. From a criminological perspective, this is similar to discussions that debate the merits of various philosophies of punishment (i.e., deterrence, rehabilitation, retribution, and incapacitation). Qualitative research methods would allow researchers to explore these intricacies during data collection and analysis. Simply stated, certain concepts for studying bullying do not appear to lend themselves as favorably to quantitative analysis.

The scaled independent variables (i.e., policy and support) used for this study also require further examination. Factor analyses and scale reliability tests determined these scales to be acceptable for the current data analysis. However, additional qualitative inquiry focusing on the items included within each scale may serve to strengthen the overall validity of these measures. It was assumed there would be reasons why some teachers would not respond according to policy. For example, if teachers thought the policy was too harsh (e.g., zero tolerance), then that might cause them to respond inconsistently. In conjunction, a punitive policy may lead some teachers to classify some bullying behaviors as horseplay, thereby reducing the event cognitively to where it would not warrant a response. Furthermore, it may prove beneficial to inquire of teachers their perceptions of other teachers' behaviors. Discovery of these types of processes are better suited for qualitative inquiry. Therefore, these items require further testing, analysis, and evaluation before accepting them as finalized measures.

Future research endeavors also should consider collecting data from other school personnel. Most research about bullying focuses on students' perceptions, behaviors, and experiences. Very few studies have included principals and other school personnel (e.g., guidance counselors, school nurses, resource officers). It may prove beneficial to

examine perceptions of other school personnel and then to compare them with one another. Mutual understanding among principals, teachers, students, parents, and researchers will facilitate the development of a relevant body of knowledge.

Conclusions

The seminal definition for bullying provided by Olweus (1993) describes a behavioral interaction rather than a specific behavior or individual. Thus, bullying interactions occur when individual characteristics of the child who is perceived to be bullying are combined with the actions of their peers, the reactions of teachers and other adults at school, the physical characteristics of the school grounds, family factors, cultural characteristics, and community factors (Swearer & Doll, 2001). Thus, propensities for bullying are the result of continued interactions between individuals and their immediate environment. In essence, bullying and teachers' responses to bullying are about how students interact with one another and how those interactions are controlled in terms of what is acceptable or unacceptable in a social environment.

From this perspective, bullying actually provides a parallel concept with which to analyze the broader concepts of social interaction and social control. The problem currently is that multiple conceptualizations exist about what bullying is, why it happens, whether it is a positive or negative experience, whether it can be prevented, eliminated, or if it is inevitable. For example, many researchers use bullying interchangeably with other concepts, such as victimization, harassment, bully/victim problems, aggression, peer rejection, peer acceptance, school violence, and youth violence (see Griffin & Gross, 2004; Kim et al., 2005; Olweus, 1993; 2001; Rigby, 2001; Salmivalli, 2001; Schuster, 2001; Smokowski & Kopasz, 2005). These may not be entirely different concepts;

however, some distinction may exist within the motivation, intent, or execution of the behaviors these concepts describe.

Likewise, multiple conceptualizations exist for how best to respond to bullying. Anti-bullying policies have focused on the bully, the victim, and the whole school. Anti-bullying policies also have been more or less punitive in their approach. For instance, punitive-based policies in the past have referred or removed students and placed them in alternative schools. Less punitive-based policies have emphasized character education. Overall, some strategies may be more or less effective for different types and degrees of bullying and others more or less effective for different students and different schools (Rigby, 2002). More importantly, research has indicated that none of these approaches prove capable enough on their own to reduce instances of bullying (Dake et al., 2003).

"Most teachers have little control over school policy or curriculum or choice of texts or special placement of students, but most have a great deal of autonomy inside the classroom. To a degree shared by only a few other occupations, such as police work, public education rests precariously on the skill and virtue of the people at the bottom of the institutional pyramid" (Kidder, 1990). Furthermore, as Walker (2006) points out, the nature of reform determines whether or not reform is successful. Walker further states that small reforms are more likely to succeed than implementing extensive changes. Teachers already respond to student conflict and inappropriate behavior in schools when it occurs. Teachers also respond with more or less formal sanctions depending on the seriousness of the situation and other contextual factors. Thus, harnessing teachers with the additional burden of framing their responses within a bullying perspective has the potential to create more harm than good for both teachers and students.

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APPENDIX A

Date
Principal
School
Address
City, State, Zip Code

Dear Principal,

I am writing this letter to ask for your assistance with my research project on teachers' responses to student conflict. I have been granted permission to conduct research in your school by the appropriate administrators. I would like to survey teachers (e.g., regular full-time, part-time, substitutes, teaching assistants) in your school as part of my project. The following paragraph provides a brief overview of the research as well as an outline of the preferred method of distribution.

First, I am a Ph.D. candidate at Indiana University of Pennsylvania, and the research being conducted will be used in order to complete my dissertation. The purpose of this research is to examine individual and organizational factors that may influence how teachers respond to student conflict. It should be noted that all data collected from the surveys would remain anonymous. I will be surveying teachers in twenty-eight schools within the school system, and there will be no employee or institutional identifiers on the survey. Therefore, there will be no way to identify which responses came from a particular teacher or from a particular school. Furthermore, since participation is voluntary, teachers may choose to either participate or not to participate. There will be no way to determine who participates, or how many teachers participated from a particular school. I have attached a copy of the survey for your review.

Second, this study will utilize a mail survey. Thus, the teachers can complete the survey on their own time or at their convenience. I will hand deliver survey packets to your school that include the survey, a self-addressed stamped envelope for return of the survey, and a cover letter that explains the survey to the teachers. I would ask that these survey packets be distributed in teachers' mailboxes or with their paychecks.

I thank you in advance for your support. Since the data collected from all schools will be presented in aggregate form, specific data regarding your school will not be available. However, if requested, a copy of this study will be made available to all who participate in the research.

The purpose of this letter was to introduce the study and to ask for your support. I will be phoning your office the week beginning _____ to discuss this project in more detail. Should you have any questions beforehand, please do not hesitate to call me at (540) 831-5990. Again, thank you for your support.

Sincerely,

Michael Bush
Doctoral Candidate

APPENDIX B

Date
School Address

Dear Educator,

In about one week you will receive a request in the mail to fill out a brief questionnaire for an important study being conducted at Indiana University of Pennsylvania.

The study concerns teachers' responses to student conflict in schools.

I am writing in advance because it has been found that many people like to know ahead of time that they will be contacted. The study is fundamental in obtaining a better understanding of teachers' responses to student conflict.

Thank you for your time and consideration. It is only with your generous help that my research can be successful.

Sincerely,

Michael Bush
Doctoral Candidate
Department of Criminology
Indiana University of Pennsylvania
Indiana, PA 15705
724-357-1250

APPENDIX C

Thank you for agreeing to complete this survey. Your participation is greatly appreciated and will undoubtedly provide useful information about issues that teachers face in schools. The questionnaire is divided up into six parts. Please read the directions for each part. The survey will take approximately 15 - 20 minutes to complete.

Part I: Teacher Concerns
Teachers have multiple concerns related to their work. Listed below are some of these concerns. Rank the following items from 1 to 5, where 1 indicates your highest concern and 5 indicates your lowest concern.

Classroom resources/materials…….._____
Student assessment……..._____
Bullying……..…._____
Curriculum/lesson plan…….…._____
No child left behind initiatives…….….._____

Part II: There are varying perspectives about student conflict situations and how to respond to them. Please read the definitional phrases provided below and answer the questions that follow each of the phrases. To answer the questions, either place an "**X**" in the space to the left of your answer choice or circle the percentage underneath the line provided.

1. *A student hits, kicks, pushes, or shoves another student.*

A.) Have you seen this type of behavior occur this academic year (i.e., 2008 - 2009)?

_____ Yes _____ No

B.) Using the scale below, how seriously do you rate this behavior?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not at all					Moderately Serious					Very Serious

C.) Using the scale below, how likely are you to respond to this type of behavior?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not at all					Somewhat Likely					Very Likely

D.) Based on your experience, how would you typically respond to this type of behavior? Please choose only one answer.

_____ do not respond to this type of behavior
_____ discuss behavior with the student who hit, kicked, pushed, or shoved
_____ have students who are involved in the situation talk to one another
_____ discuss the situation with the entire class
_____ call the parents of the student who hit, kicked, pushed, or shoved the other student
_____ send the student who hit, kicked, pushed, or shoved to detention
_____ send the student who hit, kicked, pushed, or shoved to the office
_____ other (please specify): _____

E.) Do you consider this type of behavior bullying? _____ Yes _____ No

2. *A student threatens another student with physical harm.*

A.) Have you seen this type of behavior occur this academic year (i.e., 2008 - 2009)?

_____ Yes _____ No

B.) Using the scale below, how seriously do you rate this behavior?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not at all					Moderately Serious					Very Serious

C.) Using the scale below, how likely are you to respond to this type of behavior?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not at all					Somewhat Likely					Very Likely

D.) Based on your experience, how would you typically respond to this type of behavior? Please choose only one answer.

_____ do not respond to this type of behavior
_____ discuss behavior with the student who threatened another student
_____ have students who are involved in the situation talk to one another
_____ discuss the situation with the entire class
_____ call the parents of the student who threatened another student
_____ send the student who threatened another student to detention
_____ send the student who threatened another student to the office
_____ other (please specify): _____

E.) Do you consider this type of behavior bullying? _____ Yes _____ No

3. *A student is being teased by another student.*

A.) Have you seen this type of behavior occur this academic year (i.e., 2008 - 2009)?

_____ Yes _____ No

B.) Using the scale below, how seriously do you rate this behavior?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not at all					Moderately Serious					Very Serious

C.) Using the scale below, how likely are you to respond to this type of behavior?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not at all					Somewhat Likely					Very Likely

D.) Based on your experience, how would you typically respond to this type of behavior? Please choose only one answer.

_____ do not respond to this type of behavior
_____ discuss behavior with the student who teased another student
_____ have students who are involved in the situation talk to one another
_____ discuss the situation with the entire class
_____ call the parents of the student who teased another student
_____ send the student who teased another student to detention

_____ send the student who teased another student to the office
_____ other (please specify): _____

E.) Do you consider this type of behavior bullying? _____ Yes _____ No

4. *A student is being called hurtful names.*

A.) Have you seen this type of behavior occur this academic year (i.e., 2008 - 2009)?

_____ Yes _____ No

B.) Using the scale below, how seriously do you rate this behavior?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not at all					Moderately Serious					Very Serious

C.) Using the scale below, how likely are you to respond to this type of behavior?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not at all					Somewhat Likely					Very Likely

D.) Based on your experience, how would you typically respond to this type of behavior? Please choose only one answer.

_____ do not respond to this type of behavior
_____ discuss behavior with the student who was name-calling
_____ have students who are involved in the situation talk to one another
_____ discuss the situation with the entire class
_____ call the parents of the student who was name-calling
_____ send the student who was name-calling to detention
_____ send the student who was name-calling to the office
_____ other (please specify): _____

E.) Do you consider this type of behavior bullying? _____ Yes _____ No

5. *A student is deliberately being left out of a group of other students.*

A.) Have you seen this type of behavior occur this academic year (i.e., 2008 - 2009)?

_____ Yes _____ No

B.) Using the scale below, how seriously do you rate this behavior?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not at all					Moderately Serious					Very Serious

C.) Using the scale below, how likely are you to respond to this type of behavior?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not at all					Somewhat Likely					Very Likely

D.) Based on your experience, how would you typically respond to this type of behavior? Please choose only one answer.

_____ do not respond to this type of behavior
_____ discuss behavior with the students who were leaving others out
_____ have students who are involved in the situation talk to one another
_____ discuss the situation with the entire class
_____ call the parents of the students who were leaving others out
_____ send the students who were leaving others out to detention
_____ send the students who were leaving others out to the office
_____ other (please specify): _____

E.) Do you consider this type of behavior bullying? _____ Yes _____ No

6. *A student is having rumors or gossip spread around about him or her.*

A.) Have you seen this type of behavior occur this academic year (i.e., 2008 - 2009)?

_____ Yes _____ No

B.) Using the scale below, how seriously do you rate this behavior?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not at all					Moderately Serious					Very Serious

C.) Using the scale below, how likely are you to respond to this type of behavior?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not at all					Somewhat Likely					Very Likely

D.) Based on your experience, how would you typically respond to this type of behavior? Please choose only one answer.

_____ do not respond to this type of behavior
_____ discuss behavior with the student who was spreading rumors
_____ have students who are involved in the situation talk to one another
_____ discuss the situation with the entire class
_____ call the parents of the student who was spreading rumors
_____ send the student who was spreading rumors to detention
_____ send the student who was spreading rumors to the office
_____ other (please specify): _____

E.) Do you consider this type of behavior bullying? _____ Yes _____ No

For parts III, IV, and V, please read the following definition for bullying and answer the questions in each section according to the definition provided.

> *A student is being bullied or victimized when he or she is exposed, repeatedly and over time, to* ***negative actions*** *on the part of one or more other students.*
>
> *Negative actions are defined as when someone intentionally inflicts, or attempts to inflict, injury or discomfort upon another.*

Part III: Please answer the questions below by either placing an "X" in one of the blanks provided, writing your answer in the blank provided, or by circling the number that corresponds to how strongly you agree or disagree with the given statement.

1. Have you received any training for responding to bullying since being hired at your school?

   _____ Yes _____ No

If you answered Yes to the question above, then please answer question 1A.) below. If you answered No, then please move ahead to Question 2 and continue the survey.

A). In the last academic year (i.e., 2008 - 2009), how many hours have you spent being trained at your school for responding to bullying?

_____ hours

2. Using the scale below, respond to the statement, "I would like more training for responding to bullying."

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Strongly Disagree					Neither agree nor disagree					Strongly Agree

Part IV: Please answer the questions below by either placing an "X" in one of the blanks provided or by circling the number that corresponds to how strongly you agree or disagree with the given statement.

1. Does your school have a formal anti-bullying policy? _____ Yes _____ No

If you answered Yes to the question above, then please answer the questions below. If you answered No, then please move ahead to Part V and continue the survey.

A.) Using the scale below, how familiar are you with the school's anti-bullying policy?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not at all					Moderately Familiar					Very Familiar

B.) Using the scale below, how satisfied are you with your school's anti-bullying policy?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not at all					Moderately Satisfied					Very Satisfied

C.) Using the scale below, how effective is your school's anti-bullying policy?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not at all					Moderately Effective					Very Effective

D.) Using the scale below, how consistent are you in enforcing your school's anti-bullying policy?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not at all					Moderately Consistent					Very Consistent

E.) Using the scale below, how involved were you in developing your school's anti-bullying policy?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Not at all					Moderately Consistent					Very Consistent

Part V: Please answer the questions below by circling the number that corresponds to how strongly you agree or disagree with the given statement.

1. When responding to bullying, other teachers support my response.

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Strongly Disagree					Neither agree nor disagree					Strongly Agree

2. When responding to bullying, the vice principal/principal supports my response.

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Strongly Disagree					Neither agree nor disagree					Strongly Agree

3. When responding to bullying, the school board/school district supports my response.

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Strongly Disagree					Neither agree nor disagree					Strongly Agree

4. When responding to bullying, students support my response.

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Strongly Disagree					Neither agree nor disagree					Strongly Agree

5. When responding to bullying, parents support my response.

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Strongly Disagree					Neither agree nor disagree					Strongly Agree

Part VI: Personal and Professional Characteristics
Please answer the following questions about your personal and professional characteristics either by writing your response on the line provided or by placing an "**X**" on the appropriate line provided.

1. What is your current age? _____ years old

2. What is your gender? _____ Male _____ Female

3. What race/ethnicity do you most identify with?
   Asian/Pacific Islander _____
   African American _____
   Hispanic/Latino _____
   Native American _____
   Caucasian (White) _____
   Other (please specify) _____

4. What type of teacher are you at this school?
   Regular full-time teacher _____
   Part-time teacher _____
   Long-term substitute _____
   Student teacher _____
   Teacher's aide/assistant _____
   Other (please specify) _____

5. How many ***consecutive*** years have you been teaching? _____ years

6. What grade(s) do you ***currently*** teach? _____ grade(s)

Thank you for taking the time to complete this questionnaire. Your assistance in providing this information is very much appreciated. If there is anything else you would like to tell us about this survey, please do so in the space provided below.

APPENDIX D

Dear Educator:

You are invited to participate in this research study. The following information is provided in order to help you to make an informed decision whether or not to participate. If you have any questions please do not hesitate to ask by contacting the Project Director or Faculty Sponsor, whose information is listed below. You are eligible to participate because you are a teacher in the identified public school system.

To begin, I am a Ph.D. candidate at Indiana University of Pennsylvania, and the research being conducted will be used in order to complete my dissertation. I have been granted permission by the appropriate school administrators to conduct research in the school system. I have also contacted the principal at your school and have asked if I could deliver surveys to your facility for distribution to you and your colleagues. Please be aware that this research is not being conducted on behalf of your employer. Therefore, you are not obligated to participate in this study. Participation is strictly ***voluntary***, and no one, including your employer, will be aware of whether or not you participated in the study. Furthermore, all data collected would remain anonymous. There are no employee identifiers or institutional identifiers included on the survey.

The purpose of this study is to examine the influence of individual level and organization level factors towards teachers' responses to student conflict situations. The survey questions will ask about your perceptions of certain behaviors and different aspects of your work. Should you choose to participate in this study, it will entail completing the attached survey and will require approximately 15 - 20 minutes of your time. All answers provided will be completely anonymous. No one will be able to link your answers to you. To maintain anonymity, please do not put any identifying information (employee or institution) on the survey.

There are no known risks associated with your participation. Your responses will be considered only in combination with those from other participants. The information obtained in the study may be published in scientific journals or presented at scientific meetings but your identity will be anonymous. Should you decide to participate in the study and you have questions, or have questions after you have completed the survey, you may contact the Project Director or Faculty Sponsor at any time.

If you are willing to participate in the study, please fill out the attached survey and return it in the envelope provided. Please feel free to offer any additional comments on a separate sheet of paper. Your participation is greatly appreciated and a copy of the final report will be made available to all schools that participate in the study. This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: (724) 357-7730). Should you have any questions, please contact the Project Director or Faculty Sponsor listed below:

Project Director: Mr. Michael Bush
Doctoral Candidate
Department of Criminology
Indiana University of Pennsylvania
Wilson Hall
441 North Walk Rd.
Indiana, PA 15705
(724) 357-2720

Faculty Sponsor: Dr. Jennifer Roberts
Associate Professor
Department of Criminology
Indiana University of Pennsylvania
Wilson Hall
441 North Walk Rd.
Indiana, PA 15705
(724) 357-2720

Thanks again for your participation.

Sincerely,

Michael Bush

APPENDIX E

Sample Population and Sampling Frame Characteristics

Type of School	**Number of Teachers at Each School**	**Whether Schools Participated or Not**
Primary School (K-2)		
1	40	X
Elementary Schools (K-5; 3-5*)		
2	31	X
3	26	-
4*	29	X
5	26	X
6	30	-
7	25	-
8	24	X
9	29	X
10	34	X
11	21	-
12	27	X
Middle Schools (6-8)		
13	34	X
14	39	X
15	60	X
16	22	-
High Schools (9-12)		
17	49	X
18	110	-
19	97	X
20	36	-

NOTE: Information provided by individual school websites, March, 2009
*Indicates school includes only grades 3-5

APPENDIX F

Frequencies and percentages for Dependent Variable "Typical Response" (N=134)

Physical Bullying (hit, kick, push, shove)	**Coding**	**Frequency (n=133)**
Do not respond to this type of conflict	1	
Discuss situation with the student that hit, kicked, pushed, or shoved	2	39 (29.3%)*
Have students that are involved in the situation talk to one another	3	11 (8.3%)
Discuss the situation with the entire class	4	2 (1.5%)
Call the parents of the student that hit, kicked, pushed, or shoved	5	4 (3.0%)
Send the student that hit, kicked, pushed, or shoved to detention	6	
Send the student that hit, kicked, pushed, or shoved to the office	7	39 (29.3%)*
Other (please specify)	8	38 (28.6%)
Physical Bullying (threaten)	**Coding**	**Frequency (n=129)**
Do not respond to this type of conflict	1	
Discuss situation with the student that threatened the other student	2	26 (20.2%)
Have students that are involved in the situation talk to one another	3	11 (8.5%)
Discuss the situation with the entire class	4	2 (1.6%)
Call the parents of the student that threatened the other student	5	6 (4.7%)
Send the student that threatened the other student to detention	6	2 (1.6%)
Send the student that threatened the other student to the office	7	48 (37.2%)*
Other (please specify)	8	34 (26.4%)
Verbal Bullying (teased)	**Coding**	**Frequency (n=131)**
Do not respond to this type of conflict	1	
Discuss situation with the student that teased the other student	2	53 (40.5%)*
Have students that are involved in the situation talk to one another	3	18 (13.7%)
Discuss the situation with the entire class	4	11 (8.4%)
Call the parents of the student that teased the other student	5	2 (1.5%)
Send the student that teased the other student to detention	6	1 (.8%)
Send the student that teased the other student to the office	7	7 (5.3%)
Other (please specify)	8	39 (29.8%)
Verbal Bullying (called names)	**Coding**	**Frequency (n=131)**
Do not respond to this type of conflict	1	
Discuss situation with the student that called the other student names	2	53 (40.5%)*
Have students that are involved in the situation talk to one another	3	22 (16.8%)
Discuss the situation with the entire class	4	9 (6.9%)
Call the parents of the student that called the other student names	5	1 (.8%)
Send the student that called the other student names to detention	6	
Send the student that called the other student names to the office	7	6 (4.6%)
Other (please specify)	8	40 (30.5%)
Relational Bullying (left out)	**Coding**	**Frequency (n=130)**
Do not respond to this type of conflict	1	2 (1.5%)
Discuss situation with the students that are leaving other students out	2	28 (21.5%)
Have students that are involved in the situation talk to one another	3	26 (20.0%)
Discuss the situation with the entire class	4	41 (31.5%)*
Call the parents of the students that are leaving other students out	5	1 (.8%)
Send the students that are leaving other students out to detention	6	
Send the student that are leaving other students out to the office	7	
Other (please specify)	8	32 (24.6%)
Relational Bullying (gossip/rumors spread)	**Coding**	**Frequency (n=129)**
Do not respond to this type of conflict	1	
Discuss situation with the student that is spreading rumors	2	25 (19.4%)
Have students that are involved in the situation talk to one another	3	20 (15.5%)
Discuss the situation with the entire class	4	34 (26.4%)
Call the parents of the student that is spreading rumors	5	3 (2.3%)
Send the student that is spreading rumors to detention	6	
Send the student that is spreading rumors to the office	7	6 (4.7%)
Other (please specify)	8	41 (31.8%)*

NOTE: *Indicates modal category

APPENDIX G

Bivariate Correlation Matrix

Table: Bivariate Correlations (N=134)

	Likelihood of Responding to Physical Bullying	Likelihood of Responding to Verbal Bullying	Likelihood of Responding to Relational Bullying	Seriousness of Physical Bullying	Seriousness of Verbal Bullying	Seriousness of Relational Bullying	Grade Elem and Mid/High	Consecutive Years Teaching	Total Training Hours	Policy Scale	Support Scale	Age	Race/Ethnicity	Gender	Type of Teacher
Likelihood of Responding to Physical Bullying	1	.618**	.367**	.329**	.310**	.243**	-.059	.099	.022	.322**	.244**	.105	-.157	-.019	-.026
Likelihood of Responding to Verbal Bullying		1	.551**	.313**	.487**	.447**	-.108	.214*	.041	.240**	.179*	.183*	-.005	-.120	-.017
Likelihood of Responding to Relational Bullying			1	.151	.300**	.671**	-.495**	.115	.238**	.418**	.378**	.192*	-.005	-.327**	-.045
Seriousness of Physical Bullying				1	.673**	.440**	-.019	-.005	.003	.214*	.053	-.127	-.025	-.031	.046
Seriousness of Verbal Bullying					1	.666**	.074	.137	.083	.165	-.019	.053	.015	-.107	.019
Seriousness of Relational Bullying						1	-.352**	.066	.284**	.464**	.307**	.108	.026	-.216*	.027
Grade Elem and Mid/High							1	.091	-.334**	-.430**	-.460**	.005	.[a]	.265**	.005
Consecutive Years Teaching								1	.037	.130	.113	.667**	-.119	.014	-.040
Total Training Hours									1	.248**	.250**	-.075	-.054	-.060	-.045
Policy Scale										1	.669**	.142	-.289**	-.041	-.069
Support Scale											1	.097	-.240**	-.034	-.145
Age												1	-.143	-.073	.052
Race/Ethnicity													1	-.026	-.026
Gender														1	.108
Type of Teacher															1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

a. Cannot be computed because at least one of the variables is constant.