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**TEACHER RESPONSES TO CHILDREN'S VERBAL BULLYING  
AND SOCIAL EXCLUSION**

A Thesis in

School Psychology

by

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## ABSTRACT

Few studies have examined how teachers respond to bullying in children, yet knowledge of teacher reactions to bullying are important for the development of effective intervention programs. Female elementary school teacher ratings of likelihood of intervention in bullying and the types of strategies used to respond to bullying situations were examined. Teachers were presented with hypothetical scenarios that were varied by the type of bullying (verbal bullying or social exclusion), whether or not the teacher witnessed the bullying incidents, and whether the bullying occurred between boys or girls. Teachers were asked to indicate their likelihood of intervening in the situations and rate how likely they would be to use a list of strategies to respond to the scenarios. Teachers were *likely* to intervene in the scenarios, but likelihood of intervention ratings were higher for verbal bullying and bullying that was witnessed. Teacher likelihood of intervention was not significantly different based on the sex of the children involved. There was not a direct relationship between years of teaching experience and likelihood of intervention. Teachers were more likely to intervene in verbal bullying and bullying that was witnessed when years of experience were controlled. Teachers did not demonstrate strong likelihood of using most response strategies, although the strategies they did use differed by witness condition and type of bullying. The results of this study are important because, if teachers respond to actual bullying situations in a similar manner as the teachers in this study reported they would, they are likely to reinforce bullies for their behavior and contribute to further bullying in their schools. Teachers need training to understand the key elements of bullying and to be able to recognize the different types of bullying so that they can prevent bullying and intervene appropriately when it does occur.

## TABLE OF CONTENTS

List of Figures .....	vi
List of Tables .....	vii
Acknowledgments .....	x
Chapter 1. INTRODUCTION.....	1
Effects of Bullying.....	3
Research on Bullying.....	6
Why Teachers Do Not Intervene in Bullying .....	7
Current Study .....	11
Research Questions and Hypotheses .....	14
Chapter 2. LITERATURE REVIEW .....	18
Defining Bullying.....	18
Sex Differences in Bullying.....	21
Teacher Knowledge of Bullying .....	24
Teacher Identification of Children Involved in Bullying .....	28
Teacher Attitudes Toward Bullying .....	31
Teacher Responses to Bullying .....	35
Conclusions.....	37
Limitations of the Studies .....	41
Chapter 3. METHOD .....	44
Participants.....	44
Materials .....	46
Procedure .....	54
Data Analysis .....	55
Chapter 4. RESULTS .....	78
Descriptive Statistics .....	78
Hypothesis 1.....	82
Hypothesis 2.....	85
Hypothesis 3 .....	85
Hypothesis 4 .....	89
Hypothesis 5.....	116
Hypothesis 6.....	122

Chapter 5. DISCUSSION .....	128
Main Findings of Teacher Ratings of Likelihood of Intervention and Their Relationship to Findings from Other Studies of Teacher Responses to Bullying.....	128
Main Findings of Teacher Ratings of Likelihood of Using the Strategies to Respond to Bullying and Their Relationship to Findings from Other Studies of Teacher Responses to Bullying.....	131
Explanation of the Findings .....	136
Implications.....	141
Limitations .....	146
Suggestions for Future Research.....	149
References.....	151
Appendix A: Bullying Attitudes Questionnaire .....	169
Appendix B: Bullying Attitudes Questionnaire – Revised: Male Version.....	181
Appendix C: Bullying Attitudes Questionnaire – Revised: Female Version .....	188
Appendix D: Reactions to Situations Survey: Male Witness Version.....	195
Appendix E: Reactions to Situations Survey: Male Not Witness Version.....	198
Appendix F: Reactions to Situations Survey: Female Witness Version .....	201
Appendix G: Reactions to Situations Survey: Female Not Witness Version .....	204

**LIST OF FIGURES**

Figure 1: Interaction of Witness Condition x Type of Referral to Other Adults Strategy .....	108
Figure 2: Interaction of Witness Condition x Type of Teacher Actions Strategy .....	113
Figure 3: Interaction of Sex of Children x Discipline Strategy.....	117
Figure 4: Interaction of Witness Condition x Discipline Strategy .....	119
Figure 5: Interaction of Sex of Children x Years of Teaching Experience x Type of Bullying .....	123
Figure 6: Interaction of Sex of Children x Years of Teaching Experience x Type of Bullying for Teachers with the Most and Least Years of Experience.....	125
Figure 7: Interaction of Type of Bullying x Witness Condition for the Number of Strategies Teachers Used .....	126

## LIST OF TABLES

Table 1: Distribution of Grade Level Taught by Participating Teachers .....	45
Table 2: Skewness and Kurtosis Values for Teacher Likelihood of Using the Strategies to Respond to the Verbal Bullying Scenarios .....	58
Table 3: Skewness and Kurtosis Values for Teacher Likelihood of Using the Strategies to Respond to the Social Exclusion Scenarios .....	60
Table 4: Tests of Normality for Teacher Ratings of Likelihood of Intervention in the Scenarios .....	61
Table 5: Tests of Normality for Teacher Ratings of Likelihood of Using the Strategies to Respond to the Verbal Bullying Scenarios .....	62
Table 6: Tests of Normality for Teacher Ratings of Likelihood of Using the Strategies to Respond to the Social Exclusion Scenarios .....	64
Table 7: Tests of Homogeneity of Variance for Teacher Ratings of Likelihood of Intervention in the Scenarios Based on the Sex of Children Involved in the Bullying Scenarios .....	66
Table 8: Tests of Homogeneity of Variance for Teacher Ratings of Likelihood of Intervention in the Bullying Scenarios Based on Witness Condition ....	66
Table 9: Correlations for School Size, Number of Students Receiving Free and Reduced Lunch, Teacher Class Size, and Teacher Age with Teacher Ratings of Likelihood Of Intervention in the Verbal and Social Exclusion Scenarios .....	69
Table 10: Correlations for School Size, Number of Students Receiving Free and Reduced Lunch, Teacher Class Size, and Teacher Age with Likelihood of Using the Strategies to Respond to the Verbal Scenarios .....	70
Table 11: Correlations for School Size, Number of Students Receiving Free and Reduced Lunch, Teacher Class Size, and Teacher Age with Likelihood of Using the Strategies to Respond to the Social Scenarios .....	72

Table 12: Means, Standard Deviations, and Ranges for Teacher Ratings of Likelihood of Intervention in the Verbal Bullying and Social Exclusion Scenarios.....	78
Table 13: Means and Standard Deviations for Likelihood of Intervention by Scenario Type.....	79
Table 14: Means and Standard Deviations for Teacher Ratings of Likelihood of Using the Strategies to Respond to the Verbal Bullying and Social Exclusion Scenarios .....	81
Table 15: ANOVA for Teacher Likelihood of Intervention in the Bullying Scenarios .....	84
Table 16: ANCOVA for Teacher Likelihood of Intervention in Bullying with Years of Teaching Experience as a Covariate.....	88
Table 17: Categorization of the Strategies Teachers Used to Respond to the Bullying Scenarios.....	91
Table 18: Correlations for Teacher Ratings of Likelihood of Using the Strategies to Respond to the Verbal Scenarios.....	93
Table 19: Correlations for Teacher Ratings of Likelihood of Using the Strategies to Respond to the Social Scenarios .....	96
Table 20: Correlations of Strategies Teachers Used to Respond to the Verbal and Social Scenarios .....	100
Table 21: Pattern Matrix for the Strategies Teachers Used to Respond to the Verbal Scenarios.....	103
Table 22: Pattern Matrix for the Strategies Teachers Used to Respond to the Social Scenarios.....	104
Table 23: Marginal Means for the Witness Condition x Referral to Other Adults Interaction .....	110
Table 24: MANOVA for Teacher Likelihood of Using the Referral to Other Adults Strategies to Respond to the Bullying Scenarios .....	111
Table 25: MANOVA for Teacher Likelihood of Using the Teacher Actions Strategies to Respond to the Bullying Scenarios.....	115



Table 26: Marginal Means for the Witness Condition x Discipline Strategy Interaction .....	120
Table 27: MANOVA for Teacher Likelihood of Using the Discipline Strategies to Respond to the Bullying Scenarios Based on Sex of the Children Involved in the Bullying .....	121
Table 28: MANOVA for the Number of Strategies Teachers Used to Respond to Bullying.....	127

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## **Chapter 1**

### **Introduction**

Bullying among children occurs in schools worldwide and in nearly all cultures (Banks, 1997; Smith & Brain, 2000; Smith & Morita, 1999; Stockdale, Hangaduambo, Duys, Larson, & Sarvela, 2002; Weinhold, 2000). Although bullying is common, it is not socially acceptable or harmless (Hazler, 1996; Smith & Brain, 2000). Bullying is increasingly being recognized as a prevalent form of violence that affects a great number of students (Batsche & Knoff, 1994; Espelage, 2004; Nansel et al, 2001; Weinhold, 2000).

Bullying is a significant problem in schools throughout the United States (Holt & Keyes, 2004). In a nationwide survey of over 15,000 American sixth through tenth grade students by Nansel et al. (2001), 30% of the students reported being moderately or frequently involved in bullying either as a bully, a victim, or both. Of the sample, 13% reported they were bullies, 10% were victims, and 6% reported being both bullies and victims. Smaller scale studies conducted in the United States with students at the elementary through high school level have found that 10% to 20% of students report being frequently victimized (Harris, 2004; Harris, Petrie, & Willoughby, 2002; Pellegrini, Bartini & Brooks, 1999; Perry, Kusel, & Perry, 1988). The majority of students in several other studies indicated that they have been bullied at some point during their school careers (Berthold & Hoover, 2000; Hazler, Hoover, & Oliver, 1992; Hoover, Oliver, & Hazler, 1992; Hoover, Oliver, & Thomson, 1993; Paulk, Swearer, Song, & Cary, 1999). Students have stated that they observe bullying at their schools (Centers for Disease Control [CDC], 1995; Harris et al., 2002; Nolin,

Davies, & Chandler, 1996) and, in at least one study, have reported that bullying is a substantial problem that occurs on a daily basis (Kaiser Family Foundation, 2001). A significant number of students in other studies expressed fear that they will be victimized and reported feeling unsafe at school (Berthold & Hoover, 2000; CDC, 1995; Harris, 2004; Nolin et al., 1996). In fact, 5% to 10% of students in three different studies disclosed that they have stayed home from school due to bullying problems (CDC, 1995; Harris, 2004; Hazler, Hoover, & Oliver, 1991). Bullying and victimization are regarded as clear indicators that something is wrong in the school environment (Spivak & Prothrow-Stith, 2001).

Bullying is considered to be repetitive low-level abuse (Hazler, Miller, Carney, & Green, 2001). Violent acts rarely occur without a pattern of lower level aggressive behaviors such as teasing, insults, threats, harassment, and social exclusion (Carney, Hazler, & Higgins, 2002; Goldstein, 2001; Hazler & Carney, 2000). Serious aggression and school violence, including gang fights, assault, rape, murder, and suicide, tend to receive more attention than the antecedents to these problems that emerge and progress over time (Goldstein, 2001; Hazler & Carney, 2000). Low-level aggressive behaviors generally receive less recognition in schools, yet they are common and can cause great distress (Craig, Henderson, & Murphy, 2000; Elinoff, Chafouleas, & Sassu, 2004; Esplage, Bosworth, & Simon, 2000; Hoover et al., 1993).

### *Effects of Bullying*

Numerous researchers have discussed the harm related to peer victimization. Bullying experiences have been associated with negative immediate and lifelong outcomes for both bullies and their victims (Banks, 1997; Batsche & Knoff, 1994; Hazler, 1996; Hazler et al., 1992; Hanish & Guerra, 2002; Hoover et al., 1993; Olweus, 1991). The bullies and victims in Nansel et al.'s (2001) nationwide study in the United States reported experiencing difficulties with psychological adjustment. Some research studies have found that those children who both bully others and are bullied themselves (known as bully-victims) have the poorest functioning and represent an especially high-risk group (Kumpulainen et al., 1998; Nansel et al., 2001; Wolke, Woods, Bloomfield, & Karstadt, 2000). The effects of victimization, therefore, are not limited solely to the victims of bullying because bullies also experience problems related to bullying.

*Bullies.* Berthold and Hoover's (2000) study of fourth through sixth grade students found that children who bullied other children had problems in school and in their interpersonal relationships with their families and peers. The bullies in Nansel et al.'s (2001) study perceived themselves as having poorer academic achievement. Some researchers who have used self-report methodology have found that bullies are more likely to smoke cigarettes and experiment with alcohol and other controlled substances (Berthold & Hoover, 2000; Kaltiala-Heino, Rimpela, Rantanen, & Rimpela, 2000; Nansel et al., 2001). Bullies have been rated by parents, teachers, and themselves as exhibiting more externalizing behavior problems and general misconduct in a few other studies (Bosworth, Espelage, & Simon, 1999;

Kumpulainen et al., 1998; Wolke et al., 2000). Longitudinal research has found that bullies have adjustment problems in adulthood and exhibit higher rates of alcohol abuse, child abuse, and other criminal behavior (Olweus, 1991, 1993).

*Victims.* Victims can be affected in a number of different ways both initially and in the long term (Hanish & Guerra, 2002). After incidents of bullying victims have reported feeling angry, sad, and worried (Berthold & Hoover, 2000; Borg, 1998; Harris et al., 2002; Sharp, 1995). Some victims have reported being unaffected by the bullying they receive (Borg, 1998; Harris et al., 2002), while others have revealed that they feel helpless and afraid at school (Berthold & Hoover, 2000; Borg, 1998).

Chronic victimization has been associated with school related problems. Victims in some studies have reported a desire to avoid school or have actually stayed home from school due to problems with bullying (Harris, 2004; Kochenderfer & Ladd, 1996; Nesdale & Pickering, 2005). Further, victims' learning may be affected when they do attend school. Several researchers have found that victimization is related to poorer academic functioning, including a drop in grades (Hazler et al., 1992; Hoover et al., 1992; Hoover et al., 1993; Juvonen, Nishina, & Graham, 2000; Kochenderfer & Ladd, 1996; Schwartz, Gorman, Nakamoto, & Toblin, 2005). In one study victims reported that their concentration was impaired (Sharp, 1995) and in another study, were rated by peers and teachers as demonstrating inattention in the classroom (Hanish & Guerra, 2002). Collectively, these studies suggest that victimization is related to problems in various areas of school functioning.

Along with problems at school, persistent victimization has been related to social-emotional problems as well (Hanish & Guerra, 2002; Hazler et al., 1992; Hoover et al., 1992; Hoover et al., 1993). Hawker and Boulton's (2000) meta-analysis evaluated studies conducted between 1978 and 1997 that reported relationships between peer victimization and psychological maladjustment. Their analysis revealed that victimization is strongly associated with depression and loneliness, and to a significant but lesser extent, low self-esteem and anxiety. More recent studies have supported Hawker and Boulton's finding that victimization is related to depression, anxiety, and loneliness (Baldry, 2004; Craig, 1998; Hanish & Guerra, 2002; Kaltiala-Heino et al., 2000; Nansel et al., 2001). Researchers have found that victims of bullying report having problems making friends and relating to their classmates (Nansel et al., 2001), are rated as unpopular with or rejected by their peers (Hanish & Guerra, 2002; Perry et al., 1988; Schuster, 1999), and act out aggressively against their peers (Berthold & Hoover, 2000; Hanish & Guerra, 2002). Furthermore, persistent victimization has been related to suicidal ideation (Carney, 2000; Rigby & Slee, 1999; Slee, 1995) and, in some severe cases, victims have committed suicide as a result of bullying (Smith, Bowers, Binney, & Cowie, 1993; Smith & Brain, 2000).

Some researchers consider bullying to be a major underlying factor in school violence (Bulach, Fulbright, & Williams, 2003; Harris, 2004; Spivak & Prothrow-Stith, 2001). Victims in a nationally representative study of 8,374 American 12 to 18-year-old students reported they were more likely to bring weapons to school and to be involved in physical fights than students who were not bullied (Nesdale & Pickering, 2005). An ongoing pattern of being bullied and rejected was present in many of the



recent perpetrators of shootings in American schools (Leary, Kowalski, Smith, & Phillips, 2003; Vossekuil, Fein, Reddy, Borum, & Modzeleski, 2002). Victimization may not have caused the students to shoot their peers, but it may have been a significant factor in the shootings.

### *Research on Bullying*

Bullying has effects on bullies, their victims, those who witness such acts, and the general school climate, particularly when further school violence results. Bullying is not a new phenomenon, but it has only recently been scientifically researched (Olweus, 1993). Over the past 25 years, research on bullying has occurred on an international level (Smith & Brain, 2000). Researchers have acquired considerable knowledge of the nature and extent of bullying, yet relatively little is known about teacher attitudes and perspectives on bullying (Bauman & Del Rio, 2005; Boulton, 1997; Craig, Henderson, & Murphy, 2000; Espelage & Swearer, 2003; Harris & Willoughby, 2003; Nicolaidis, Toda, & Smith, 2002; Siann, Callaghan, Glissov, Lockhart, & Rawson, 1993).

Students in various studies have indicated that most bullying takes place at school, rather than on the way to or from school (Berthold & Hoover, 2000; Harris et al., 2002; Olweus, 1991; Sharp, 1995). Teachers are typically responsible for handling bullying situations and implementing intervention programs (Boulton 1997; Craig, Henderson, & Murphy, 2000), yet some researchers have found that they intervene in bullying infrequently and inconsistently (Bentley & Li, 1995; Craig, Henderson, & Murphy, 2000; Jaeger, 2002). Teachers in several studies have stated that they usually intervene in bullying situations (Crothers & Kolbert, 2004; Holt &

Keyes, 2004; Jaeger, 2002; Zeigler & Rosenstein-Manner, 1991), but studies with students do not support teacher assertions that they help victims, as students have reported that teachers frequently do not attempt to address bullying (Bentley & Li, 1995; Boulton & Underwood, 1992; Crothers & Kolbert, 2004; Charach, Pepler, & Zeigler, 1995; Olweus, 1991; Whitney & Smith, 1993; Zeigler & Rosenstein-Manner, 1991). Naturalistic observations of bullying on playgrounds and in classrooms have supported student reports: teachers stopped less than 20% of victimization episodes (Atlas & Pepler, 1998; Craig & Pepler, 1997; Craig, Pepler, & Atlas, 2000) and in one study, intervened in as few as 4% of bullying situations (Brendtro, 2001). Students in several studies have reported that school personnel handle problems poorly, either due to ignorance about the prevalence of bullying or because they are not interested in addressing bullying (Berthold & Hoover, 2000; Harris, 2004; Hazler et al., 1991, 1992; Hoover et al., 1992).

#### *Why Teachers Do Not Intervene In Bullying*

Researchers have proposed various reasons to account for why teachers may not intervene in bullying. First, teachers may be unaware that it is occurring (Colvin, Tobin, Beard, Hagan, & Sprague, 1998; Craig, Henderson, & Murphy, 2000; Espelage & Swearer, 2003; Froschl & Sprung, 1999; Hazler et al., 1992; Garbarino & deLara, 2003; Goldstein, 2001; Gropper & Froschl, 2000; Rodkin & Hodges, 2003). Most bullying occurs on the playground or in other locations where there is less chance for teachers to observe it (Bentley & Li, 1995; Craig & Pepler, 1997). Naturalistic observations of bullying by Craig and Pepler (1997) revealed that bullying mostly occurred without adult witnesses and that school staff were

considered to be unaware of 80% of the bullying episodes. Bullying may be overlooked because victims of bullying in several different studies have indicated they do not tell teachers about being bullied and are more likely to tell a friend or parent than a teacher about being bullied (Bentley & Li, 1995; Borg, 1998; Goldstein, 2001; Harris, 2004; Harris et al., 2002; Hoover et al., 1992; Smith & Shu, 2000; Unnever & Cornell, 2004; Zeigler & Rosenstein-Manner, 1991). Teachers may not recognize the extent of bullying in their schools if it is not reported (Craig, Henderson, & Murphy, 2000; Hazler et al., 1992).

Besides being unaware of bullying incidents, teachers may fail to intervene in bullying because they do not understand the nature of bullying. Different researchers (i.e., Crothers & Kolbert, 2004; Stockdale et al., 2002) have found that teacher estimates of the prevalence of bullying are not in line with student reports of bullying, as teachers either underestimate or overestimate the level of bullying in their schools. Teachers may be unable to determine if a given situation is actually a bullying problem (Garbarino & deLara, 2003), as teachers in two studies have had difficulty differentiating bullying incidents and aggressive fighting from play fighting (Boulton, 1993; Hazler et al., 2001). Other researchers have reported that teachers are more likely to view conflicts that involve physical attacks as bullying than verbal assaults and social exclusion (Cooper & Snell, 2003; Hazler et al., 2001).

Additionally, adults in four different studies have not been very accurate in their identification of bullies and victims (Carney et al., 2002; Hazler, Carney, Green, Powell, & Jolly, 1997; Leff, Kupersmidt, Patterson, & Power, 1999; Paulk et al., 1999). Teachers may not fully understand the nature of bullying, so they may need

help in recognizing bullying situations as well as the children who are involved in them (Cooper & Snell, 2003).

Teachers may be unwilling to intervene in bullying situations even when they are aware of them (Espelage & Swearer, 2003; Rodkin & Hodges, 2003). Teachers in various studies have reported that they did not consider themselves to be very confident in handling bullying (Boulton, 1997; Nicolaides et al., 2002) and do not know how to effectively respond when they are aware of it (Harris & Willoughby, 2003; Horne & Socherman, 1996). Student reports in a few different studies have reflected the findings of the teacher studies. Students have disclosed that their teachers are generally ineffective at handling bullying problems (Hazler et al., 1992; Hoover et al., 1992) and view the strategies that teachers use to handle bullying as not being very helpful (Crothers & Kolbert, 2004). It has been suggested that teachers may not respond to bullying because they believe they are unsupported in their bullying intervention efforts (Colvin et al., 1998). A study by Harris and Willoughby (2003) may offer support for this notion, as the teachers in their study were not certain that other teachers wanted to decrease bullying in their schools. It has also been proposed that teachers may not be willing to intervene in bullying because they believe it is a situation they cannot control or they believe they are already doing all they need to do (Cooper & Snell, 2003; Garbarino & deLara, 2003).

Teachers may be unwilling to intervene in bullying but they may also deliberately ignore bullying because they think they should not intervene. There have been numerous statements in the bullying literature suggesting that teachers view bullying as a normal part of childhood that is not harmful (e.g., Arora & Thompson,

1987; Banks, 1997; Carney & Merrell, 2001; Colvin et al., 1998; Coy, 2001; Elinoff et al., 2004; Froschl & Sprung, 1999; Goldstein, 2001; Gropper & Froschl, 2000; Hazler et al., 1992; Limber & Small, 2003) and may believe it serves to make children tougher (e.g., Goldstein, 2001; Vernberg & Gamm, 2003). Some authors of bullying review articles have proposed that bullying may be ignored in hopes that children will learn to resolve such problems on their own (e.g., Brendtro, 2001; Colvin et al., 1998; Froschl & Sprung, 1999; Garbarino & deLara, 2003; Gropper & Froschl, 2000). Other authors have proposed that student reports of bullying may be viewed as tattling, so teachers may not intervene in bullying in an effort to discourage tattling behavior (e.g., Cooper & Snell, 2003; Froschl & Sprung, 1999; Gropper & Froschl, 2000).

Various reasons have been proposed to explain why teachers do not intervene in bullying, including being unaware of and not understanding bullying, not knowing how to effectively respond, or believing that they should not respond. Unfortunately, not much research has been conducted on teacher attitudes toward bullying or the strategies they view as being effective in responding to bullying (Crothers & Kolbert, 2004; Holt & Keyes, 2004; Yoon, 2004). Teachers' understanding of and beliefs about bullying are considered important because they may affect their responses to it (Craig, Henderson, & Murphy, 2000; Madsen, 1996; Yoon, 2004). Teacher responses are also believed to be significant because adults may play a key role in the development of bullying in schools (Espelage, Bosworth, & Simon, 2000; Yoon & Kerber, 2003). Most bullying occurs at school (Berthold & Hoover, 2000; Coy, 2001; Harris et al., 2002; Olweus, 1991; Sharp, 1995) and teachers are typically at the

forefront of handling bullying problems (Nicolaidis et al., 2002); therefore, it seems pertinent that their attitudes toward and responses to bullying be researched.

Knowledge of teacher attitudes and reactions to bullying incidents may assist in the development of more effective prevention and intervention programs (Holt & Keyes, 2004).

### *Current Study*

Social learning theory has been applied to studies of bullying (e.g., Craig, Pepler, & Atlas, 2000; Espelage et al., 2000) and was used as a framework for this study. According to social learning theory, the likelihood for aggression is increased when it is not discouraged or punished (Huesmann & Eron, 1984). Bullies are reinforced for their behavior and may believe that their behavior is acceptable when teachers do not intervene in bullying (Craig, Pepler, & Atlas, 2000; Crothers & Kolbert, 2004). Lack of teacher intervention in bullying can result in giving power and authority to the bullies and may allow them to successfully exert control over their victims (Garbarino & deLara, 200; Yoon, 2004). Bullying that is reinforced can escalate and progress into more severe types of abuse (Goldstein, 2001). Lack of teacher intervention in bullying situations may contribute to further bullying in schools (Craig, Pepler, & Atlas, 2000; Yoon, 2004). When teachers do not actively address bullying, it is possible that children will believe adults are condoning it and that they do not view bullying as a serious problem (Cooper & Snell, 2003; Froschl & Sprung, 1999; Gropper & Froschl, 2000; Madsen, 1996). On the other hand, when teachers respond appropriately to bullying behavior, they convey a powerful message that bullying is

not acceptable behavior and may deter children from future bullying (Harris & Willoughby, 2003; Yoon & Kerber, 2003).

Female elementary school teachers rated their likelihood of intervention in bullying and the types of strategies that they use in dealing with bullying situations in this study. The focus was on verbal and social bullying for four reasons. First, students in various studies have reported that verbal bullying is the most common form of bullying and is used by both boys and girls (Ahmad & Smith, 1994; Bentley & Li, 1995; Berthold & Hoover, 2000; Hoover et al., 1993; Nansel et al., 2001; Stockdale et al., 2002). Second, students in at least two studies perceived social exclusion as being particularly hurtful (Hazler et al., 1992; Sharp, 1995). Third, some researchers found that teachers were more likely to view conflicts that involve physical attacks as bullying than verbal assaults and social exclusion (Boulton, 1997; Boulton & Hawker, 1997; Hazler et al., 2001). Finally, other research studies showed that teachers viewed physical bullying as being more serious and worthy of intervention than verbal or indirect bullying (Bauman & Del Rio, 2006; Brendtro, 2001; Craig, Henderson, & Murphy, 2000; Yoon & Kerber, 2003).

Female elementary school teachers were chosen as a focus of this study because the majority of elementary teachers are female (National Center for Educational Statistics, 2000). The elementary school level was selected because bullying is prevalent in early childhood, making it crucial for adults to deal with it before it turns into a normal occurrence in the lives of children (Froschl & Sprung, 1999). Some students become victims as early as kindergarten (Snyder et al., 2003), and a study by Perry et al. (1988) found that the tendency for certain children to be victimized could

be established by early adolescence. Numerous researchers have indicated that levels of bullying are highest in late elementary through middle school-aged children (Bjorkqvist, Lagerspetz, & Kaukiainen, 1992; Bjorkqvist, Osterman, & Kaukiainen, 1992; Eslea & Rees, 2001; Hazler, 1996; Hazler et al., 1991, 1992; Nansel et al., 2001; National Center for Educational Statistics, 2005; Nolin et al., 1996; Pellegrini & Long, 2002), making information about how elementary school teachers respond to bullying essential for preventative purposes.

Teachers were presented with four of the scenarios that Craig, Henderson, and Murphy (2000) used in their study. The scenarios were varied by whether or not the teacher witnessed the bullying incidents and the sex of the children involved in the bullying situations. Naturalistic observations of bullying have revealed that bullying is often hidden from teachers (Atlas & Pepler, 1998; Craig & Pepler, 1997; Craig, Pepler, & Atlas, 2000), so it is important to examine what teachers say they would do when they have been informed about bullying but have not observed it, in contrast to when they have directly witnessed bullying. The scenarios depicted bullying between children of the same sex because several researchers agree that same sex aggression is more common than between sex aggression (Archer, Peterson, & Westeman, 1988; Bjorkqvist & Niemala, 1992; Maccoby & Jacklin, 1980; McCabe & Lipsomb, 1988; Oesterman et al., 1998; Paquette & Underwood, 1999; Pellegrini & Long, 2002; Russell & Owens, 1999) and no previous research has examined how teachers respond to bullying based on child sex. Teachers were asked to rate their likelihood of intervening in each situation. They indicated how likely they were to use various strategies to respond to the different situations. Relationships between length of



teaching experience and sex of children involved in the bullying scenarios to likelihood of intervention and strategies used to respond to bullying were also examined.

### *Research Questions and Hypotheses*

*Likelihood of intervention.* As previously noted, a few research studies have found that adults are more concerned with and more likely to address physical bullying than verbal bullying and social exclusion incidents. Teachers in the Craig, Henderson, and Murphy (2000), Yoon and Kerber (2003), and Bauman and Del Rio (2006) studies rated verbal bullying episodes as being more serious and requiring intervention more than the social exclusion scenarios. The prospective teachers in the Craig, Henderson, and Murphy study were more likely to intervene in bullying episodes that they witnessed. These findings led to the following research question and hypothesis:

Question #1: Are female elementary school teachers more likely to say they would intervene in verbal bullying they witness in comparison to social exclusion bullying and situations they do not witness?

Hypothesis #1: Female elementary school teachers are more likely to say they would intervene in witnessed verbal bullying situations than social exclusion bullying and those situations they do not witness.

*Relationship of sex differences to likelihood of intervention.* Teachers in various studies have rated boys as being significantly more physically and verbally aggressive than girls (Crick, Casas, & Mosher, 1997; Hudley, 1993; Hudley et al., 2001; Rys & Bear, 1997). Research reveals that teachers treat boys and girls differently (American

Association of University Women [AAUW], 1998). For example, teachers in one study rated boys as displaying more problem behaviors than girls (Taylor, Gunter, & Slate, 2001). A study in which school discipline files were reviewed revealed that boys are more often referred for disciplinary action (McFadden, Marsh, Price, & Hwang, 1992). Based on these findings, the next research question and hypothesis was:

Question #2: Are female elementary school teachers more likely to say they would intervene in verbal and social exclusion bullying situations that involve boys in comparison to verbal and social exclusion situations that involve girls?

Hypothesis #2: Female elementary school teachers are more likely to say they would intervene in verbal and social exclusion bullying that occurs between boys than verbal and social bullying that occurs between girls.

*Relationship of teaching experience to likelihood of intervention.* The teachers in Boulton's (1997) study who had more years of teaching experience were found to be more negative in their attitudes toward victims. Yoon (2004), on the other hand, found that teaching experience was not predictive of likelihood of intervention in bullying. These findings led to the following research question and hypothesis:

Question #3: Is female elementary school teachers' likelihood of intervention in verbal and social exclusion bullying situations related to their years of teaching experience?

Hypothesis #3: Years of teaching experience will not be related to female elementary school teachers' likelihood of intervention in the verbal and social exclusion bullying scenarios.

*Teacher responses to different types of bullying.* Studies of teacher responses to bullying have revealed that teachers generally talk with students involved in bullying, punish bullies and refer them to other school staff, give advice to victims, and consult with parents and other staff members when addressing bullying (Harris & Willoughby, 2003; Kikkawa, 1987). No previous research has examined if teachers use different strategies to respond to various bullying situations, even though teachers in a few different studies (i.e., Bauman & Del Rio, 2006; Craig, Henderson, & Murphy 2000; Yoon & Kerber, 2003) have indicated that verbal bullying is more serious and more worthy of intervention than social exclusion. Teachers in Craig, Henderson, and Murphy's (2000) study were also more likely to intervene in bullying that they witnessed. These findings led to the next research question and hypothesis:

Question #4: Do female elementary school teachers say they would use similar types of strategies for witnessed and non-witnessed verbal and social exclusion bullying situations?

Hypothesis #4: Female elementary school teachers are likely to say they would use similar types of strategies to intervene in witnessed and non-witnessed verbal and social exclusion bullying situations.

*Teacher responses to bullying based on child sex.* A study by the American Association of University Women (1998) found that boys are punished more frequently and harshly than girls are for the same misbehavior (AAUW, 1998). Additionally, two studies have indicated that the majority of students suspended from school are boys (AAUW, 1998; McFadden et al., 1992). Based on these findings the next research question and hypothesis was:

Question #5: Are female elementary school teachers more likely to say they would use disciplinary types of strategies to intervene in verbal and social exclusion bullying situations between boys in comparison to those that involve girls?

Hypothesis #5: Female elementary school teachers are more likely to say they would use disciplinary types of strategies to intervene in verbal and social exclusion bullying situations that involve boys in comparison to verbal bullying and social exclusion situations among girls.

*Relationship of teacher responses to bullying and teaching experience.* Teachers with greater years of teaching experience expressed more negative attitudes toward victims and identified fewer misbehavior incidents as being problematic in two different studies (i.e., Borg & Falzon, 1989, 1990; Boulton, 1997). These findings led to the final research question and hypothesis:

Question #6: Would there be differences between female elementary school teachers who have fewer years of teaching experience in comparison to female elementary school teachers who have more years of teaching experience in the number of strategies used to intervene with verbal and social bullying?

Hypothesis #6: Female elementary school teachers with fewer years of teaching experience will be more likely to say they would use more strategies to intervene in verbal and social exclusion bullying than female elementary school teachers who have more years of teaching experience.

## Chapter 2

### Literature Review

#### *Defining Bullying*

Researchers in Scandinavian countries, particularly Dan Olweus in Norway, were the first to systematically study bullying (Smith & Brain, 2000; Stockdale et al., 2002). Olweus (1991) defined bullying as, “A person is being bullied when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other persons” (p. 413). Olweus’ definition of bullying is regarded as still being current (Holt & Keyes, 2004), although there is no one accepted definition of bullying because it has been defined with different terminology (Arora, 1996; Elinoff et al., 2004; Swain, 1998). Regardless of a lack of a single, generally accepted definition of bullying, there is general agreement among researchers that bullying is similar to aggression, though it also includes several components that distinguish it from aggression (Ahmad & Smith, 1994; Olweus, 1993; Smith, Cowie, Olafsson, & Liefvooghe, 2002; Swain, 1998).

Bullying is considered to be a subset of aggression; therefore it shares some of the main elements of aggressive behavior (Ahmad & Smith, 1994). First, like aggression, bullying is intended to cause harm (Ahmad & Smith, 1994; Espelage, 2004; Olweus, 1991, 1993; Smith et al., 2002; Swain, 1998; Weinhold, 2000). Second, bullying and aggression can occur through direct verbal or physical attacks, or indirectly through psychological attacks, by such means as making faces or gestures, socially isolating and excluding victims from groups, spreading nasty rumors, and refusing to comply with another’s wishes (Ahmad & Smith, 1994;

Elinoff et al., 2004; Olweus, 1991, 1993). Finally, both the bully and the victim can be an individual child or a group of children (Ahmad & Smith, 1994; Elinoff et al., 2004; Olweus, 1991, 1993).

Bullying seems to be distinct from aggression in a number of ways. First, bullying is a repeated act that occurs over time (Ahmad & Smith, 1994; Olweus, 1991, 1993; Smith et al., 2002; Swain, 1998; Weinhold, 2000) and often happens between the same bully and victim (Ahmad & Smith, 1994). Second, the relationship between the bully and victim is characterized by an imbalance in power because the bully is older, stronger, or bigger than the victim (Ahmad & Smith, 1994; Olweus, 1991, 1993; Smith et al., 2002; Swain, 1998; Weinhold, 2000). Victims are not able to easily defend themselves because they are regarded as being either physically or psychologically weaker or outnumbered (Hazler et al, 1992; Olweus, 1991, 1993; Roland & Idsoe, 2001; Smith & Brain, 2000). Finally, the bullying is generally unprovoked by the victim (Ahmad & Smith, 1994; Olweus, 1993; Swain, 1998), although there are some victims who incite bullying and are referred to as provocative victims (Olweus, 1993).

There is a need to consider current issues when defining bullying (Smith, 2004). Until recently aggression was viewed as behavior that occurred primarily among males (Owens, Shute, & Slee, 2000, 2004; Russell & Owens, 1999). Early researchers in the field of aggression and bullying focused their research on males because female aggression was thought to be a rare occurrence (Bjorkqvist, 1994; Owens et al., 2000, 2004; Russell & Owens, 1999). During the 1980s research concentrated on direct or overt physical aggression and bullying, which is a form of aggression that is more

typical of males, but by the 1990s, researchers began examining a form of aggression that is believed to be more characteristic of females (Crick, Bigbee, & Howes, 1996; Owens et al., 2000, 2004; Smith, 2004). Various terms have been used to identify this female form of aggression, including indirect (Bjorkqvist, Lagerspetz, & Kaukiainen, 1992), relational (Crick & Grotpeter, 1995), and social (Galen & Underwood, 1997). Despite the various terms applied to this female form of aggression, the central theme is damaging and manipulating peer relationships in subtle and covert ways (Crick et al., 1996; Owens et al., 2000, 2004). Some researchers have argued that there are differences between indirect, relational, and social types of aggression, whereas others have stated that only the terminology is different (Vallencourt, Brendgen, Boivin, & Tremblay, 2003).

Indirect means of aggression were not included in past definitions of bullying therefore, the prevalence of bullying among girls may have been underestimated and sex differences in bullying may have been affected (Ahmad & Smith, 1994). With more inclusive definitions of aggression and bullying, some researchers have concluded that females are aggressive; they just use different styles of aggression (Russell & Owens, 1999; Vallencourt et al., 2003). Boys do not appear to be more aggressive than girls when it is understood that aggression can take many different forms (Vallencourt et al., 2003).

*Sex Differences in Bullying*

*Bullies and victims.* Numerous studies conducted with various methodology and in different countries have repeatedly found that boys bully other children more than girls do (Ahmad & Smith, 1994; Baldry, 2004; Baldry & Farrington, 1999; Bentley & Li, 1995; Beran & Tutty, 2002; Berthold & Hoover, 2000; Bosworth et al., 1999; Boulton & Smith, 1994; Boulton & Underwood, 1992; Craig & Pepler, 1997; Craig, Pepler, & Atlas, 2000; Esplage et al., 2000; Gropper & Froschl, 2000; Hoover et al., 1993; Hudley, 1993; Hudley et al., 2001; Kumpulainen et al., 1998; Nansel et al., 2001; Olweus, 1991, 1995; Pellegrini et al., 1999; Pellegrini & Long, 2002; Sharp, 1995; Smith & Shu, 2000, Whitney & Smith, 1993; Zeigler & Rosenstein-Manner, 1991). Some studies have found that boys are victims of bullying more often than girls (Atlas & Pepler, 1998; Bernstein & Watson, 1997; Berthold & Hoover, 2000; Boulton & Underwood, 1992; Demray & Malecki, 2003; Kumpulainen et al., 1998; Nansel et al., 2001; Nolin et al., 1996; Olweus, 1993; Pellegrini & Long, 2002; Whitney & Smith, 1993), but other researchers have shown that boys and girls are equally at risk for victimization (Atlas & Pepler, 1997; Bentley & Li, 1995; Beran & Tutty, 2002; Gropper & Froschl, 2000; Hoover et al., 1992; Hoover et al., 1993; Kochenderfer & Ladd, 1996; Pellegrini et al., 1999; Perry et al., 1988; Stockdale et al., 2002; Smith & Shu, 2000; Zeigler & Rosenstein-Manner, 1991). Collectively these studies indicate that both boys and girls are involved in bullying, although girls may be involved to a lesser extent than boys.



*Who bullies whom.* Some researchers have found that same-sex aggression is more common than between-sex aggression (Archer et al., 1988; Bjorkqvist & Niemala, 1992; Maccoby & Jacklin, 1980; McCabe & Lipsomb, 1988; Oesterman et al., 1998; Paquette & Underwood, 1999; Pellegrini & Long, 2002; Russell & Owens, 1999). Other researchers have shown that sex differences exist in who bullies whom. Based on students' self-reports, researchers have concluded that boys are mainly bullied by boys, sometimes by both boys and girls, but seldom by girls only, whereas girls are bullied by both boys and girls (Baldry & Farrington, 1999; Bentley & Li, 1995; Beran & Tutty, 2002; Boulton & Underwood, 1992; Hazler et al., 1991; Hoover et al., 1993; Olweus, 1991; Smith & Shu, 2000; Whitney & Smith, 1993). On the other hand, peer nomination studies and naturalistic observations have revealed that boys are more likely to bully other boys than girls, while girls bully both girls and boys (Boulton, 1996; Craig & Pepler, 1997; Craig, Pepler, & Atlas, 2000), suggesting that boys bully fewer girls and girls bully more boys than had been previously thought (Boulton, 1996).

*Type of bullying.* Sex differences have been found for the type of bullying children use (Ahmad & Smith, 1994). Several different researchers have found that direct verbal bullying, particularly name calling and teasing, is the type of bullying that occurs most often and is used by both boys and girls (Ahmad & Smith, 1994; Bentley & Li, 1995; Berthold & Hoover, 2000; Bjorkqvist, Lagerspetz, & Kaukiainen, 1992; Bjorkqvist, Osterman, & Kaukiainen, 1992; Hoover et al., 1993; Lagerspetz, Bjorkqvist, & Peltonen, 1988; Nansel et al., 2001; Stockdale et al., 2002). Physical aggression and bullying have been found to be significantly more common

in boys in various studies (Baldry & Farrington, 1999; Bentley & Li, 1995; Berthold & Hoover, 2000; Bjorkqvist, 1994; Bjorkqvist, Lagerspetz, & Kaukiainen, 1992; Bjorkqvist, Osterman, & Kaukiainen, 1992; Boulton & Underwood, 1992; Craig, 1998; Hoover et al., 1993; Nansel et al., 2001; Olweus, 1991; Rivers & Smith, 1994; Smith, 2004; Smith & Shu, 2000; Stockdale et al., 2002; Whitney & Smith, 1993).

Sex differences in indirect bullying are less consistent and suggest the need for further research in this area (Espelage & Swearer, 2003). Numerous studies indicate girls are involved in more indirect aggression (Bjorkqvist, 1994; Bjorkqvist, Lagerspetz, & Kaukiainen, 1992; Bjorkqvist, Osterman, & Kaukiainen, 1992; Boulton & Underwood, 1992; Crick, 1997; Crick & Bigbee, 1998; Crick et al., 1997; Crick & Grotpeter, 1995; Hoover et al., 1993; Lagerspetz et al., 1988; Nansel et al., 2001; Olweus, 1991; Ostrov & Keating, 2004; Smith & Shu, 2000; Whitney & Smith, 1993) whereas other studies reveal boys are as likely as girls to experience and use indirect bullying (Baldry, 2004; Baldry & Farrington, 1999; Bentley & Li, 1995; Crick & Grotpeter, 1995; Paquette & Underwood, 1999; Rys & Bear, 1997). Still, some studies indicate that boys bully through indirect means more than girls (Harris et al., 2002; Hennington, Hughes, Cavell, & Thompson, 1998). Based on the results of numerous research studies, it seems that physical means of bullying may be more characteristic of boys, but both boys and girls are involved in verbal and indirect means of bullying to some extent.

### *Teacher Knowledge of Bullying*

Understanding of bullying is considered to be important because it can affect how teachers respond to bullying situations (Craig, Henderson, & Murphy, 2000; Madsen, 1996; Yoon, 2004). It is important to know how teachers define bullying because they may not be likely to intervene in incidents that they do not consider to be bullying (Boulton, 1997). Awareness of prevalence rates of bullying and sex differences in bullying are believed to be important factors in teacher knowledge of bullying.

*Defining features of bullying.* A few researchers have examined what adults consider to be the defining features of bullying. Madsen (1996) conducted individual interviews with teachers and parents and found that 78% percent of the 80 teachers and parents indicated bullying causes harm to victims, 23% perceived bullying as being repetitive in nature, and 16% thought intention was an important factor in bullying. Siann et al. (1993) interviewed 20 teachers in London about their definitions of bullying and found that half of the teachers included an imbalance in power between the bully and victim as a key factor in bullying, but only two of them reported that repetition was important in defining bullying. More recently, Bauman and Del Rio's (2005) survey of 82 pre-service teachers in the United States revealed that 39% believed intention was important, 28% regarded an imbalance in power as an essential component of bullying, and 6% thought that repetition was key in defining bullying. Taken together, these studies suggest that adults do not consistently recognize the key defining features of bullying that have been set forth by researchers in the field.

*Types of bullying.* Teachers have provided their perceptions of the behaviors that constitute bullying. Some studies have shown that teachers consider physical, verbal, and indirect attacks to be bullying behaviors. According to teachers in three different studies (i.e., Bauman & Del Rio, 2005; Siann et al., 1993; Stockdale et al., 2002), bullying can be physical or psychological in nature, encompassing physical and verbal attacks and social exclusion. Other studies of teacher perceptions of bullying indicate that there is less agreement about the acts that comprise bullying. Over 90% of the 138 British primary and secondary school teachers that Boulton (1997) surveyed rated physical and verbal assaults as well as forcing someone to do something against their will as constituting bullying. Over half of the teachers in the study, however, did not think of social exclusion as bullying behavior. Furthermore, 25% of the teachers did not identify 'spreading nasty stories,' 'taking others' belongings,' 'name-calling,' and 'intimidating by staring' as being examples of bullying. Similarly, Boulton and Hawker (1997) found teachers regarded physical attacks as bullying but fewer than half of them believed social exclusion constituted bullying.

*Prevalence rates of bullying.* There seem to be inconsistencies in the literature regarding teacher knowledge of the prevalence of bullying. The fourth through sixth grade teachers and parents in the Stockdale et al. (2002) study indicated lower prevalence rates of bullying than students. Jaeger (2002) surveyed 327 sixth through eighth grade students and 61 of their teachers in three middle schools in northern Idaho and found no statistically significant difference between student and teacher reports of the extent of bullying. The percentages of teacher reported incidents were

lower than student reported incidents, particularly for physical bullying, though not low enough to reach statistical significance. Conversely, Crothers and Kolbert's (2004) survey of 285 sixth through eighth grade students and 37 teachers in Pennsylvania revealed that teachers reported higher rates of bullying than students. Teachers who were interviewed about the discrepancy in prevalence rates of bullying thought that students are not aware of and do not notice as much of the bullying as the teachers do because students are not directly involved in the situations like they are. Additional studies of teacher reports of the frequency of bullying in their schools are needed to clarify the inconsistencies found in the literature thus far.

*Sex differences in bullying.* Teacher definitions and prevalence rates of bullying differ, as do perceptions of sex differences in bullying. Gropper and Froschl (2000) studied school staff members' attitudes toward bullying in American kindergarten through third grade children through the use of surveys and observations. The school staff members in their study did not believe that child sex was significant in bullying and intervention rates were not significantly related to the sex of the bullies or victims. It should be noted that Gropper and Froschl's school staff members consisted of teachers, paraprofessionals, and even parent volunteers. Plus, single incidents of bullying as well as repetitive and persistent bullying were included. Siann et al.'s (1993) interviews with 20 teachers in London about the ways in which boys and girls differ in bullying revealed that 16 of the 20 teachers thought boys engage in physical bullying and girls are more involved in psychological bullying. The remaining four teachers were not certain that sex differences really existed.

Studies by Hudley and colleagues have revealed clearer sex differences in teacher ratings of students involved in bullying. Hudley (1993) asked 24 third through eighth grade teachers in three public schools in southern California to rate the level of aggressive behavior of each of the students in their classes. Teachers rated boys as being significantly more generally and physically aggressive than girls. Hudley et al. (2001) studied third through fifth grade teachers from two different neighborhoods in southern California that varied in economic level and crime. Teachers rated boys as being both more physically and verbally aggressive than girls. It should be noted that nearly all of the students in the Hudley and Hudley et al. studies were members of racial and ethnic minority groups, which makes the generalizability of these results to students around the country questionable.

Despite inconsistencies in the literature regarding teacher recognition of sex differences in bullying, a study by Crick (1997) suggested that teachers hold stereotyped attitudes regarding gender expectations in aggression. Crick examined teacher behavior ratings of 1,166 nine- to twelve-year-old students to assess if gender atypical aggression was perceived more negatively than gender normative aggression. Teacher ratings of psychological adjustment for children involved in gender atypical aggressive behavior revealed significantly more maladjustment than for children who used gender normative aggression. Boys who engaged in relational aggression were rated as more maladjusted than girls who used relational aggression. Likewise, girls who were overtly aggressive were rated as more maladjusted than overtly aggressive boys.

### *Teacher Identification of Children Involved in Bullying*

Teachers might not fully understand the nature of bullying. The aforementioned studies indicated teacher definitions of bullying, estimates of the frequency of bullying, and perceptions of sex differences in bullying were not consistent. The next group of studies showed that teachers have difficulty in identifying bullies, victims, and bullying situations as well.

*Identifying potential bullies and victims.* Two studies in the United States have examined how accurate adults are in identifying potential bullies and victims. Hazler et al. (1997) asked 14 experts in the field of bullying to examine 70 characteristics and decide whether they described typical bullies or victims. The experts rated 19 of the attributes as being significant for bullies and 22 of them as typical of victims. Bullies and victims were set apart by 11 of the characteristics. Carney et al. (2002) asked 209 teachers and 42 counselors to examine the same 70 characteristics and rate their significance in identifying children who could potentially become involved in bullying. Compared to the experts in the Hazler et al. study, the teachers and counselors believed there were fewer characteristics that were typical of victims, as they attributed only 5 of the 70 characteristics solely to victims. Fifteen of the characteristics were rated as significant for bullies. As was the case for the experts, 11 characteristics were associated with bully-victims. The ratings of the teachers and counselors were not associated with their age, gender, race, type of professional, or their previous experience with bullying themselves. Carney et al. concluded that the teachers and counselors believed that victims were more similar to bullies than the experts did, but even the experts were uncertain of the key identifying characteristics

of potential bullies and victims. Both the experts in the field of bullying and the school professionals missed important characteristics related to potential bullies and victims.

*Recognizing actual bullies and victims.* Rather than focusing on children who may potentially be involved in bullying, two groups of researchers assessed teacher skills in identifying actual bullies and victims. Paulk et al. (1999) compared teacher, peer, and self-nominations of bullying and victimization among sixth graders in a middle school in the Midwestern United States. Seventy-five percent of the students reported involvement in bullying, either as bullies, victims, or bully-victims (children who are both bullies and victims). Teachers were more accurate in detecting bullies than victims, as they identified half of the self-reported bullies but only 10% of self-reported victims. Peers recognized 33% of bullies but only 7% of victims. Peers detected 29% of bully-victims whereas teachers did not accurately identify any of the self-reported bully-victims. Paulk et al. concluded that teachers had difficulty recognizing victimization, even among students who exhibited both bully and victim behaviors. It should be noted that Paulk et al. sampled only six teachers in one school district in the Midwestern United States, calling into question the generalizability of their results.

Leff et al. (1999) compared 61 elementary and middle school teacher nominations of children involved in bullying with peer nominations by third through sixth grade children in the southern United States. The teachers identified less than half of the peer nominated bullies and victims. Elementary school teachers were more accurate in identifying children involved in bullying than middle school teachers.



Bullies and victims were more accurately identified when general education teacher reports were combined with multiple related arts teacher reports. Leff et al. concluded that their elementary teachers may have been more accurate in their identification of bullies and victims either because they had more contact with their students or because bullying becomes more covert and less easily observed with age.

*Identification of bullying situations.* Another key component of teacher knowledge of bullying is their ability to distinguish bullying from play fighting. Hazler et al. (2001) asked 251 teachers and counselors to read scenarios and identify whether they were examples of bullying or not. Teachers and counselors recognized bullying without much difficulty when physical bullying was present. Scenarios that involved verbal or social bullying, however, were less likely to be classified as bullying. Teachers and counselors had more difficulty correctly distinguishing the play fighting scenarios from the bullying scenarios, particularly when physical harm was not involved. Scenarios that included physical confrontation were typically identified as bullying even when they were not. Bullying scenarios that were accurately recognized were rated as serious, but physical bullying caused more concern to the school professionals than non-physical bullying. Those participants who accurately identified physical and non-physical bullying recognized that verbal and social bullying is harmful and that bullying is repeated abuse based on an unfair match between bullies and victims. Hazler et al. noted that correct identification is important because if bullying is misdiagnosed, school staff may react inappropriately.

### *Teacher Attitudes Toward Bullying*

Correct identification of bullying situations and the children who are involved in them is important, as are general attitudes toward bullying. Teachers in some studies have indicated that bullying is a serious and important issue (Bauman & Del Rio, 2005; Gropper & Froschl, 2000; Nicolaides et al., 2002) and their attitudes toward bullying have generally been negative (Boulton, 1997; Nesdale & Pickering, 2006). Teachers in one study believed that bullying is hurtful, with social exclusion and physical bullying being particularly upsetting (Harris & Willoughby, 2003).

Several researchers have examined general teacher attitudes regarding intervention in bullying. The teacher trainees in Nicolaides et al.'s (2002) and Bauman and Del Rio's (2005) studies thought they had an important role in dealing with bullying. Most of the teachers in Boulton's (1997) study believed they were responsible for preventing bullying in the classroom and on the playground, but not outside of school. The teachers in Harris and Willoughby's (2003) study indicated that, despite being rarely informed of bullying, they were willing to address bullying, with roughly half of them reporting they attempted to intervene in bullying when they witnessed it. The teachers were not sure that other teachers were willing to intervene in bullying though, as they rated 18% of their colleagues as being uninterested in addressing bullying.

Teachers have been asked about their level of confidence in dealing with bullying situations in addition to their general attitudes toward responding to bullying. Boulton's (1997) teachers did not feel confident in their abilities to cope with bullying, regardless of the grade level taught or number of years of teaching

experience, and most of them conveyed a desire for more training in dealing with bullying. The pre-service teachers in Nicolaides et al.'s (2002) and Bauman and Del Rio's (2005) studies expressed relatively high levels of confidence in responding to bullying, but they also expressed a desire for more training in handling bullying. Harris and Willoughby's (2003) teachers reported that more training in bullying intervention is needed for school staff members.

Rather than focusing on general attitudes toward bullying, Craig, Henderson, and Murphy (2000) attempted to provide a more comprehensive picture of teacher perspectives on bullying. They examined individual characteristics that influenced prospective teacher attitudes toward bullying, including sex, sex-role orientation, empathy, and belief in a just world, that may interact with contextual factors, such as witnessing the bullying event, type of bullying, and perceived seriousness of it. One hundred sixteen Canadian college students with three months or less of teaching experience completed empathy, sex-role orientation, and belief questionnaires. In addition, they were presented with 18 scenarios and were asked to rate how serious the conflict was, if they would label it as bullying, and how likely they were to intervene. Craig et al. found that only empathy was a significant predictor of attitudes toward bullying, which in turn were important determinants of perceived seriousness of bullying and likelihood of intervention. Physical bullying was considered to be more serious and worthy of intervention than verbal bullying by the participants. The pre-service teachers were more likely to label the verbal bullying and social exclusion scenarios that were witnessed as acts of bullying and indicated they would be more likely to intervene in those situations.

Yoon and Kerber (2003) and Yoon (2004) examined teacher attitudes toward bullying as well as the strategies they used to respond to bullying. Bauman and Del Rio (2006) replicated Yoon and Kerber's study with preservice teachers. Yoon also examined teacher self-efficacy in dealing with disruptive behaviors. Six of the bullying scenarios used by Craig, Henderson, and Murphy (2000) were modified and used in all three studies to obtain ratings of seriousness, likelihood of intervention, empathy toward victims, and the types of strategies teachers would use to intervene. Teachers rated the six scenarios that consisted of teachers witnessing physical bullying, verbal bullying, or social exclusion. Participants in Yoon and Kerber's and Yoon's studies were nearly 100 elementary school teachers who were attending graduate classes in education in the Midwestern United States. Participants in Bauman and Del Rio's study were 82 preservice teachers attending a large university in the Southwestern United States.

Yoon and Kerber's (2003) and Bauman and Del Rio's (2006) studies revealed that teacher attitudes were different for the three types of bullying. Social exclusion was rated as being less serious than both verbal and physical bullying. The physical bullying scenarios were rated as more serious than the verbal bullying scenarios. Teachers were less empathetic toward victims of social exclusion than verbal and physical bullying. They rated themselves as less likely to intervene in the social exclusion scenarios than the verbal and physical bullying scenarios. Teachers were much more likely to discipline bullies for verbal and physical bullying than social exclusion. Responses to social exclusion mostly consisted of talking to the students involved, although 10% of the teacher responses indicated that they would ignore the

situation and allow students to work it out on their own. The scores for severity, empathy, and likelihood of intervention were significantly higher for Bauman and Del Rio's preservice teachers than those of Yoon and Kerber's teachers across all three types of bullying, but teachers in both samples used similar actions toward the bullies. Bauman and Del Rio concluded that their preservice teachers may have had greater recognition of the significance of bullying problems, but their ideas for intervention were the same. Yoon and Kerber concluded that bullies who use social exclusion are likely to be reinforced for their behaviors due to the way teachers in their study responded to the bullying situations.

Based on a regression analysis, Yoon (2004) reported that teaching experience did not predict likelihood of teacher intervention in bullying scenarios. Ratings of perceived seriousness were the strongest predictor of likelihood of intervention, followed by empathy toward victims and self-efficacy. Teachers who indicated greater likelihood of intervention in the bullying scenarios were those teachers who rated the scenarios as being more serious, had more empathy toward the victims, and reported greater self-efficacy. Perceived seriousness, empathy, and self-efficacy predicted likelihood of intervention, but they did not predict the actual level of involvement by teachers in the bullying scenarios. Teacher responses to the bullying scenarios indicated they would use a variety of strategies to handle bullying, but Yoon did not provide any further information about the strategies teachers said they would use.

### *Teachers Responses to Bullying*

A few researchers have examined teacher responses to bullying. Kikkawa (1987) asked 85 Japanese secondary teachers what they would do when they first noticed bullying. The most frequent response included talking with bullies or victims to confirm the facts and resolve the situation. After they became aware of bullying situations teachers reported they would treat the problem by encouraging the victim, discussing it with the entire class, talking with the bully and victim together, and punishing the bully. Teachers indicated they would also consult the guidance department, ask the bully's and victim's parents for help, give advice to the victims, and talk with the bully, victim, and their parents.

Nicolaides et al. (2002) asked 270 teacher trainees in London about the strategies they would recommend to children who experienced victimization. Bauman and Del Rio (2005) replicated Nicolaides et al.'s study with 82 pre-service teachers in the United States. Results of the two studies, including the recommended strategies to handle bullying, were very similar. The strategy that was most often recommended by the teacher trainees was for the children to 'tell a teacher.' Other frequent recommendations for children to handle bullying included telling parents, walking away, telling bullies to stop, and getting help from friends. Teachers did not think ignoring the bullying or having students deal with the situation themselves were good strategies to recommend to students. Bauman and Del Rio expressed concern because 40% of the teachers in their study recommended that victims sometimes fight back and 20% thought victims should sometimes stand and take the victimization.

Harris and Willoughby (2003) surveyed 68 teachers who were enrolled in a principal preparation program in Texas regarding the strategies they use in addressing bullying. Teachers reported they most often responded to bullying by patrolling hallways, notifying parents, and punishing the bullies. They also indicated they refer bullies to the office and counselors and talk with students about bullying. Fifty-seven percent of the teachers believed punishment of the bullies should occur first and foremost, whereas 46% believed counseling should be a priority in dealing with bullies. Most teachers believed school staff should address bullying and that more training in bullying intervention was needed. Nearly three fourths of the teachers thought that only certain staff members, such as the assistant principal should be designated to handle bullying problems. All of the participants in this study were preparing to become principals, so these results may not be reflective of how most teachers respond to bullying.

Crothers and Kolbert (2004) examined teachers and students perceptions of bullying intervention strategies through a survey of 285 sixth-through eighth-grade students and 37 teachers in a middle school in Pennsylvania. The teachers viewed most of the strategies as being more helpful than the students did. Teachers thought ‘have someone to talk to about being bullied,’ ‘teach kids how to make bullies leave them alone,’ and ‘have kids report bullying to adults’ were the most helpful approaches in dealing with bullying. According to the students, the most helpful strategies to handle bullying were: ‘make the classroom so that bullying can’t happen by having the teacher know what is going on at all times,’ ‘teach kids how to make bullies leave them alone,’ and ‘tell your parents and the parents of bullies and

victims.’ Both teachers and students did not like making bullies and victims become study buddies or using books and role-playing to respond to bullying. Teachers did not like the idea of having students decide on punishment for bullies and students did not favor school rules that ‘say no’ to bullying. Crothers and Kolbert noted that, although their survey included common bullying intervention strategies, it might not have included the full range of strategies that teachers actually use.

### *Conclusions*

These studies have yielded some important information regarding teacher knowledge of and attitudes toward bullying, as well their responses to bullying situations. Teachers in the different studies (i.e., Bauman & Del Rio, 2005; Siann et al., 1993; Stockdale et al., 2002) indicated that bullying could be physical or psychological in nature, although the specific acts that were considered to be bullying varied. Some of the teachers in these studies viewed physical and verbal attacks and social exclusion as bullying behaviors (i.e., Siann et al., 1993; Stockdale et al., 2002), but others were less likely to regard social exclusion as bullying (i.e., Boulton, 1997; Boulton & Hawker, 1997). Teachers in the various studies recognized that bullying could be psychological or physical in nature, but they often missed the other key defining features of bullying that have been proposed by researchers. Less than 25% of teachers in the Madsen (1996), Siann et al. (1993), and Bauman and Del Rio (2005) studies indicated that repetition is an important component in bullying. Fewer than half of teachers in these same studies considered an imbalance in power between bullies and victims and intention of harm to be defining features of bullying.



Teachers varied in their understanding of the frequency with which bullying occurs in their schools, as well as sex differences in bullying. Teacher reports of prevalence rates of bullying were inconsistent across studies, as Stockdale et al. (2002) found teachers reported lower prevalence rates of bullying than students, Jaeger (2002) found no statistically significant difference between teachers and students, and Crothers and Kolbert (2004) found that teachers reported higher rates of bullying than students did. Regarding sex differences in bullying, adults in one study did not think child sex was an important factor in bullying (Gropper & Froschl, 2000) but in other studies, they viewed boys as being significantly more overtly physically and verbally aggressive (Hudley, 1993; Hudley et al., 2001) and girls as being more indirectly or relationally aggressive (Siann et al., 1993).

The inconsistencies in teachers' general knowledge of bullying may be related to findings that adults have difficulty with identifying bullying problems. Adults in two of the studies (i.e., Carney et al., 2002; Hazler et al., 1997) were not very accurate in their identification of the characteristics of typical bullies and victims. Likewise, teachers in two other studies (i.e., Leff et al., 1999; Paulk et al., 1999) had difficulty identifying those children who were actually involved in bullying, as they recognized less than half of peer and self-reported bullies, victims, and bully-victims. In addition, the adults in Hazler et al.'s (2001) study had difficulty distinguishing bullying from play fighting, particularly when physical attacks were not involved.

Even though teachers have difficulty with identifying bullying and the children who are involved in such problems, the studies of general attitudes of teachers toward bullying indicate they view it as an important issue. Teachers expressed negative

attitudes toward bullying in two studies (Boulton, 1997; Nesdale & Pickering, 2006) and in one study, thought bullying was hurtful and upsetting to students (Harris & Willoughby, 2003). Teachers in the various studies believed they had an important role in handling bullying and expressed a desire for more training in bullying intervention (Bauman & Del Rio, 2005; Boulton; 1997; Gropper & Froschl, 2000; Harris & Willoughby, 2003; Nicoladies et al., 2002).

More comprehensive studies of teacher attitudes toward bullying were conducted by Craig, Henderson, and Murphy (2000), Yoon and Kerber (2003), Yoon (2004), and Bauman and Del Rio (2005). Craig, Henderson, and Murphy compared likelihood of intervention in bullying that teachers witnessed as well as those situations that they did not observe, whereas Yoon and Kerber, Yoon, and Bauman and Del Rio focused only on bullying that teachers witnessed. Teachers in the Craig, Henderson, and Murphy, Yoon and Kerber, and Bauman and Del Rio studies perceived physical bullying as being more serious than verbal bullying and social exclusion. The teachers in Craig, Henderson, and Murphy's study were more likely to intervene in all types of bullying incidents that they witnessed. Yoon and Kerber's and Bauman and Del Rio's teachers were less likely to intervene in the social exclusion scenarios than the verbal and physical bullying scenarios. Both Craig, Henderson, and Murphy and Yoon found that empathy was a significant factor in attitudes toward bullying. Yoon reported that the teachers who were most likely to intervene in the bullying scenarios were those teachers who had more empathy toward the victims, rated the scenarios as being more serious, and reported greater self-efficacy in dealing with bullying. Perceived seriousness, empathy, and self-efficacy predicted teacher likelihood of

intervention, but these factors did not predict their actual level of involvement in the bullying scenarios.

Regarding the strategies teachers recommend to deal with bullying, teachers in the Crothers and Kolbert (2004), Nicolaides et al. (2002), and Bauman and Del Rio (2005) studies thought that students should talk with adults about bullying. Besides talking with adults, teachers in the three studies believed students should be taught how to respond to bullying and that victims should handle some situations on their own by walking away from bullies or telling them to stop. Studies of actual teacher responses to bullying by Kikkawa (1987) and Harris and Willoughby (2003) found that teacher responses generally consisted of talking with students involved in bullying, punishing bullies and referring them to other school staff, giving advice to victims, and consulting with parents and other staff members.

*Limitations of the Studies*

These studies provide valuable information about teacher attitudes and responses to bullying. These studies are not without their flaws. There are methodological limitations, as well as issues with the generalizability of these studies to teachers in the United States.

Some of the results of these studies may be limited due to the methods and measures that the researchers used. For example, in their studies of teacher perceptions of the prevalence rates of bullying, Leff et al. (1999) and Paulk et al. (1999) did not use naturalistic observations to support student reported rates of bullying. Paulk et al. suggested students could have over-reported rates of bullying and victimization, which could have made teacher nominations appear inaccurate. The psychometric properties of Boulton's scale that was used to assess teacher attitudes toward bullying would not be considered adequate by many researchers. Kikkawa (1987) did not provide information about the methodology or measures used in his study of teacher responses to bullying. Yoon and Kerber (2003) and Yoon (2004) modified Craig, Henderson, and Murphy's (2000) scenarios for use in their studies but they did not keep the essential feature of an imbalance in power between the bully and victim within the bullying scenarios. Bauman and Del Rio's (2005) replication of Yoon and Kerber's study included the same scenarios that were used by Yoon and Kerber.

Along with methodological problems, some of the studies are limited due to the types and numbers of participants in the studies. Some of the studies that examined teacher perspectives of bullying were based on very small samples (i.e., Paulk et al.,

1999; Siann et al., 1993). Participants in several of the studies (i.e., Gropper & Froschl, 2000; Hazler et al., 2001; Madsen, 1996; Stockdale et al., 2002) consisted of teachers, as well as parents and other school staff members such as counselors, paraprofessionals, and volunteers. Other times the teachers were actually teachers in training with little to no teaching experience (i.e., Bauman & Del Rio, 2005, 2006; Craig, Henderson, & Murphy, 2000; Nicolaides et al., 2002). Attitudes of pre-service teachers may be different from teachers with experience (Nicolaides et al., 2002). The teachers who participated in Harris & Willoughby's (2003) study were all enrolled in a principal preparation program. Considering that the participants in some of these studies were not teachers or were students majoring in education who had little to no actual teaching experience, the results of these studies may not generalize to the general teacher population.

The geographic locations of the studies may also be viewed as a limitation of these studies. All of the studies that were conducted in the United States (i.e., Bauman & Del Rio, 2005, 2006; Crothers & Kolbert, 2004; Harris & Willoughby, 2003; Hazler et al., 2001; Hudley, 1993; Hudley et al., 2001; Jaeger, 2002; Leff et al., 1999; Paulk et al., 1999; Yoon, 2004; Yoon & Kerber, 2003) were done in schools or universities in only one geographic region of the country. Several of the studies (i.e., Boulton, 1997; Boulton & Hawker, 1997; Madsen, 1996; Nicolaides et al., 2002; Siann et al., 1993) were conducted in England. Of the two remaining foreign studies, one was conducted in Canada (i.e., Craig, Henderson, & Murphy, 2000) and the other was done in Japan (i.e., Kikkawa, 1987). The location of the studies is important because teacher attitudes and responses to bullying may vary by culture (Craig,

Henderson, & Murphy, 2000; Siann et al., 1993). British and Canadian cultures tend to be similar to American ways of life, but Japanese culture is more variant. There is a rather homogeneous population in Japan, in which conformity is valued and academic demands are heavy (Trembl, 2001). In addition, there is a distinct form of bullying related to the collectivist culture of Japan (Azuma 1998; Trembl, 2001). Due to cultural and educational differences, it is not possible to confidently generalize the results of studies conducted in different countries to American teachers.

## Chapter 3

### Method

#### *Participants*

Participants were 220 female teachers who teach kindergarten through sixth grade in 17 public elementary schools in Maine ( $n = 10$ ), Massachusetts ( $n = 5$ ), and New Hampshire ( $n = 2$ ). Eleven of the teacher surveys were eliminated from analysis because the teachers did not follow directions for completion of the survey, which resulted in missing data for several of the dependent variables; therefore, a total of 209 participants were included in subsequent analyses. Teachers provided information about their age, race/ethnicity, and years of teaching experience. The participating teachers ranged in age from 23 to 64, with a mean age of 45.16 years ( $SD = 10.86$ ). All of the teachers classified themselves as Caucasian. The teachers reported having between 1 and 37 years of teaching experience, with a mean of 18.13 years of teaching experience ( $SD = 10.17$ ).

The participating teachers also provided information about their classrooms, including the grade level they teach, the number of students in their classes, and the number of different classes of students they teach on an average day. The teachers reported an average class size of 17.82 students ( $SD = 5.98$ ). Sixty-three percent of the teachers ( $n = 131$ ) reported teaching the same class of students all day and 37% ( $n = 77$ ) reported that they rotate classes. The distribution of the grade levels taught by teachers in this study is presented in Table 1. Teachers, such as related arts teachers, who indicated that they teach students from multiple grade levels were coded into one of two categories based on their descriptions of the grades they teach.

Teachers in the K-2 category indicated they teach kindergarten through second grade students, whereas teachers in the K-6 category teach multiple grades in kindergarten through sixth grade schools.

Table 1

*Distribution of Grade Level Taught by Participating Teachers*

Grade Level	Number of Teachers
Kindergarten	25
1 <sup>st</sup> Grade	31
2 <sup>nd</sup> Grade	31
3 <sup>rd</sup> Grade	20
4 <sup>th</sup> Grade	35
5 <sup>th</sup> Grade	15
6 <sup>th</sup> Grade	17
K – 2 <sup>nd</sup> Grade	22
K – 6 <sup>th</sup> Grade	21

Characteristics of the schools, which included the number of students receiving free and reduced lunch, the size of the school, classification of the school as rural, suburban, or urban, and the average classroom size, were collected from the principals of the schools in which the participating teachers worked. The percentage of students receiving free and reduced lunch ranged from 2% to 59% with a mean of 30.98% ( $SD = 15.90$ ). The schools ranged in size from 140 students to 1300 students, with an average school size of 379.50 students ( $SD = 291.89$ ). The average classroom



size in the schools ranged from 16 students to 24 students, with a mean of 19.50 ( $SD = 1.97$ ). Four of the schools were classified as rural, nine were considered to be suburban, and four were classified as urban.

The school principals were also asked whether any bullying prevention and intervention training had been presented to staff, as well as if any bullying prevention or intervention programs had been implemented in their schools. Ten of the 17 school principals reported that bullying prevention and intervention training had been presented to staff and that a bullying prevention and intervention program was in place. Principals from two of the schools indicated that training had been presented, but no intervention programs existed in their schools. Five of the school principals reported that no training had been presented and no formal bullying intervention programs had been implemented in their schools.

### *Materials*

*Bullying Attitudes Questionnaire.* The Bully Attitudes Questionnaire (BAQ) was created and used by Craig, Henderson, and Murphy (2000) to measure pre-service teacher definitions of bullying, perceived seriousness of bullying, and likelihood of intervention in bullying. The BAQ consists of six distinct types of bullying scenarios, which were formed by fully crossing two factors: the type of bullying (physical, verbal, and social exclusion) and whether or not the bullying is witnessed (see Appendix A). The first type of scenario in the BAQ depicts children engaged in verbal bullying that is witnessed by the teacher, whereas the second type of scenario involves verbal bullying that is not witnessed. The third type of scenario in the BAQ portrays children engaged in social exclusion that is witnessed by the teacher,

whereas the fourth type of scenario consists of social exclusion that is not witnessed by the teacher. Finally, the fifth type of scenario depicts children engaged in physical bullying that is witnessed by the teacher, and the sixth type of scenario in the BAQ involves physical bullying that is not witnessed by the teacher. Three different scenarios of each of the six distinct types of scenarios were created, resulting in a total of 18 scenarios.

To develop the scenarios, Craig, Henderson, and Murphy used Olweus' (1991) generally accepted definition of bullying, which includes three elements: negative action, an imbalance of power, and repetition over time. Negative action was indicated in the scenarios by the victim's pain. An imbalance of power was demonstrated in the scenarios by having older children attack younger children without provocation. Repetition over time was implied in the scenarios by indicating that the victim had experienced the same negative action several times.

Each of the 18 scenarios in the BAQ is followed by the same three questions: (a) How serious is this conflict? (b) How likely are you to intervene in this situation? (c) Would you call this bullying? Participants rate how serious they think the conflict is and how likely they are to intervene in the situation on a 5-point Likert-type scale. Participants indicate if they considered the scenario to be bullying by answering yes or no. Craig, Henderson, and Murphy's study with pre-service teachers yielded internal consistency coefficients from .69 to .78 for labeling the scenarios as bullying. The internal consistency coefficients ranged from .74 to .85 for perceived seriousness and from .73 to .82 for likelihood of intervention.

*Bullying Attitudes Questionnaire - Revised.* The Bullying Attitudes Questionnaire Revised (BAQ-R) consists of the 12 witnessed and not-witnessed verbal bullying and social exclusion scenarios that were created and used by Craig, Henderson, and Murphy (2000). The original content of each of the scenarios was maintained. Gender specific names were added the scenarios to indicate the sex of the children involved in the bullying situations. There are two versions of each scenario, one that depicts bullying between boys and another that portrays bullying between girls. All of the scenarios that portray bullying between boys comprise one survey (see Appendix B) whereas the scenarios that depict bullying between girls form another survey (see Appendix C). Each scenario is followed by the same two questions: (a) How likely are you to intervene in this situation? (b) If you would intervene in this situation, please list what you would do. Space is provided after each scenario to allow teachers to list the things they would do to respond to the bullying scenarios in an open-ended format.

*Pilot study with BAQ-R.* A convenience sample of 40 female teachers of kindergarten through sixth grade in one school district in rural Michigan completed the BAQ-R survey. Half of the teachers completed the survey in which the children involved in the 12 bullying scenarios were males. The remaining teachers completed the survey that involved female children in the bullying scenarios. Teachers were randomly assigned to receive the male and female versions of the surveys and completed them anonymously in small group settings.

Paired samples *t* tests were conducted to determine if teacher ratings of likelihood of intervention were significantly different for the three scenarios of each of the four distinct types of scenarios (i.e., verbal-witnessed, verbal-not witnessed, social-witnessed, social-not witnessed) differently. A total of 12 *t*-tests were conducted. A Bonferroni adjustment was made to the alpha level due to the large number of comparisons; therefore, an alpha level of .004 ( $p \leq .05/12 = .004$ ) was used to maintain an overall error rate of .05. Teachers rated one of the three social exclusion-witnessed scenarios differently than the other two. Likewise, one of the three social exclusion-not witnessed scenarios was rated differently. Comparisons of the three verbal-witnessed scenarios did not reveal significant differences in the way teachers rated them. Similarly, there were no statistically significant differences in the teacher ratings for the three verbal-not witnessed scenarios.

A content analysis of the open-ended responses on the BAQ-R was conducted to identify the types of intervention strategies teachers said they would use to respond to the hypothetical bullying scenarios. First, the principal investigator and a doctoral student in school psychology independently read the responses to become familiar with and understand the contents of the data. Suggested strategies from bullying intervention manuals and research and the general ideas from the open-ended responses were used to form categories of potential responses to the scenarios. These pre-selected categories were used to examine the responses to the scenarios for instances of support for the categories. Additional categories were added as they emerged in the review of teacher responses. When the raters did not agree about the membership category of a particular response, they discussed the response and

arrived at a consensus for the appropriate membership category. Finally, two independent raters applied the rating system to the teachers' open-ended responses. Cohen's kappa was calculated to assess the proportion of agreement between the two raters. Kappa values at .60 or above indicate adequate agreement (Cicchetti, 1994). The Kappa values were: verbal-witnessed = .99; verbal-not witnessed = .91; social-witnessed = .94; social-not witnessed = .98, which indicated the two raters demonstrated very good agreement for the membership categories of the responses.

*Reactions to Situations Survey development.* The BAQ-R needed to be refined in order to answer the research questions in this study more clearly. A new measure, the Reactions to Situations Survey (RSS), was created for three main reasons. First, the pilot study with the BAQ-R indicated that teachers rated some of the same type of scenarios (i.e., social-witness and social-not witnessed) differently. Second, no rationale supported the use of three distinct versions of social exclusion and two distinct versions of verbal bullying. Third, having teachers rate all 12 of the scenarios could potentially blur the distinctions between the types of bullying and witness condition, as well as alert the teachers to the purpose of the study. Due to these reasons, the RSS was formed by retaining 4 of the 12 scenarios from the BAQ-R.

Scenarios were eliminated on the basis of the pilot study data and face validity issues. Teachers rated one of the three social exclusion-witnessed scenarios from the BAQ-R differently than the other two. Likewise, one of the three social exclusion-not witnessed scenarios was rated differently. The two social exclusion-witnessed scenarios and the two social exclusion-not witnessed scenarios that were not rated

differently by the teachers were reexamined to determine which ones would be retained for the RSS.

One of the two remaining social exclusion-witnessed scenarios consists of an older student telling a younger student that he was not allowed to play a game because the student was not good at the game. The other scenario depicts an older student telling a younger student that he was not wanted on the older student's team because he would make them lose. The scenario that focuses on students playing a general game was retained in favor of the one that explicitly indicates a team activity with potential consequences of losing.

A similar situation existed with the two remaining social-exclusion-not witnessed scenarios. One of the scenarios depicts a child who was not allowed to play because he was not good whereas the other portrays a situation in which a student was not allowed to play baseball because he was too young. The general play scenario was selected over the baseball scenario to avoid potential complications due to a team sporting activity.

Comparisons of the three verbal-witnessed and three verbal-not witnessed scenarios on the BAQ-R did not reveal significant differences in the way teachers in the pilot study rated them. The scenarios were reexamined and eliminated solely on the basis of potential face validity issues. One of the verbal-witnessed scenarios portrays a bully demanding money from a victim, which could be considered an act of extortion, so it was eliminated from the RSS. The two remaining verbal-witnessed scenarios depict a bully calling a victim mean names. One of those two scenarios contains expletives whereas the other scenario consists of mean statements without

profanity. The scenario that includes the expletives was eliminated to avoid potential bias in responding due to the profane language issue.

Two of the verbal-not witnessed scenarios depict a single bully calling a victim mean names whereas the third scenario suggests one of the students in a group of students was verbally abusing a single student. The third scenario was eliminated from the RSS because all of the other retained scenarios depict bullying between a single bully and a single victim. The two remaining scenarios consist of a student being called specific names versus a student being made fun of. The scenario that includes specific names was retained in favor of the other due to the vagueness in the scenario.

*Reactions to Situations Survey.* The RSS consists of the four scenarios that were retained from the BAQ-R. The original content of each scenario was maintained. Two versions of each of the four scenarios were created. One version depicts bullies and victims that are boys, whereas the other version portrays bullies and victims that are girls. Gender typical names were added to the scenarios to indicate the sex of the children involved in the bullying scenarios. The scenarios were distributed to make four forms of the RSS (see Appendices D, E, F, and G). Each form includes a verbal bullying and social exclusion scenario, with witness and sex condition the same within each form of the survey. Finally, the scenarios within each form of the RSS were counterbalanced to reduce the possibility of order effects.

Each scenario is presented and followed by the same two questions. First, teachers are asked, “How likely are you to intervene in this situation?” and are instructed to rate their likelihood of intervention on a 5-point scale (*not at all likely* to *very likely*). Second, teachers are presented with 14 strategies and are told:

There are 14 strategies listed below. First, rate your likelihood of using each of the strategies from 1 (not at all likely) to 5 (very likely). Place the number that corresponds to your likelihood of intervention on the line in front of each strategy. For those strategies that also have names listed after them, please place a checkmark (✓) next to the appropriate name if you would use that particular strategy for the student. You may check both names if you would use the strategy for both students.

The same list of strategies to handle the bullying situations is provided for each scenario. The strategies were obtained from the results of the content analysis of the BAQ-R pilot study with female elementary school teachers.

*Reactions to Situations Survey pilot.* The RSS was pre-tested with a convenience sample of 20 female elementary school teachers. Teachers were randomly assigned to receive one of the four forms of the RSS. Participants completed their survey and then provided feedback regarding the survey. The teachers were asked to indicate how long it took them to complete the survey and to provide ratings on a 5-point scale to questions about the ease of use of the survey, clarity of instructions and questions, and the aesthetics of the survey. Participants were provided with space to provide criticisms and suggestions to improve the final version of the survey. The teachers indicated that the amount of time to complete the survey was between 5 to 10



minutes. Teachers thought the survey was clear and easy to use and understand. Several of the teachers indicated there was a minor typographical error. The criticisms of the survey were that not all teachers have recess duty and that it is sometimes hard to make decisions about a hypothetical scenario because additional background variables and other important factors are unknown.

### *Procedure*

A random sample of 45 public school districts in Maine, New Hampshire, and Massachusetts was selected to participate in this study. Fifteen school districts were randomly selected from each state's department of education listing of public school districts. A letter, which explained the purpose of the study, was sent to the principals of each elementary school in the 45 school districts. Principals were asked to return a postcard indicating whether or not they would be interested in allowing their teachers the opportunity to participate in the study. Follow-up contacts via phone or email were made to those principals who had not returned postcards approximately three weeks from the date the letters were mailed. Letters were sent to principals at 123 schools, of which 17 agreed to participate in the study, yielding an overall return rate of 13.82%.

All of the female teachers in the participating elementary level schools were invited to participate in the study. There were 368 teachers in the schools, 220 of whom completed the RSS, resulting in a return rate of 59.78%. The surveys were either administered in small group sessions during a designated time at the schools in which the teachers worked or were distributed to teachers and collected by the school principal or designated staff member. School principals were made aware of the

importance of including only female teachers and that teachers were to complete the surveys voluntarily. A cover letter that introduced the study, the survey, and a notice of informed consent were given to all teachers. No reference was made to bullying in the introductory letter, survey, or informed consent form to reduce the likelihood of bias in responding. Teachers completed the surveys anonymously.

### *Data Analysis*

*Power analysis.* According to Cohen (1988), “the power of a statistical test is the probability that it will yield statistically significant results” (p. 1). So, in the case of a null hypothesis, power refers to the probability that the test will find an effect that exists in a population, which means a false null hypothesis will be rejected. Cohen described four parameters of statistical inference: power, sample size, the significance criterion, which is the probability level that is used to accept an effect as being statistically significant, and effect size, which is an estimate of the magnitude of the effect in the population. When three of the parameters are known, the fourth can always be calculated.

A power analysis was conducted using the G\*Power software program (Faul & Erdfelder, 1992) to determine an appropriate sample size for the planned analyses. The sample size needed to obtain a modest effect (.35 or .40), using a significance level of .05 and power equal to .95, was between 144 and 192. A minimum of 18 to 24 cases was needed in each of the eight cells. A sample size of 209 was actually obtained and there were between 45 to 58 participants in each cell.

*Preliminary analyses.* Data were collected and then entered into a SPSS file (SPSS, 2002). The data were checked for errors after all of the data were entered into the file. Then the data were examined to determine if the assumptions of parametric statistics were tenable. Additional assumptions specific to the planned statistical analyses were assessed at the time of those analyses.

There are four assumptions common to parametric statistics: level of measurement, independence, normality, and homogeneity of variance. Data should be randomly sampled and the dependent variable should be measured at the interval level. Independence means that a participant's score should not be influenced by or related to scores of other participants. Independence does not exist when a person is measured on more than one occasion, as in repeated measures designs, however scores between participants should be independent. Random sampling and random assignment were used in this study to meet the assumption of independence.

Normality exists when data come from normally distributed populations. Graphical and statistical procedures can be used to determine if the variables are distributed normally so the appropriate assumption can be made regarding the distribution of the population. Histograms were created with the frequencies for each of the variables in order to view the shape of their distributions. Boxplots were created to detect outliers.

Descriptive statistics, including skewness and kurtosis, were also calculated for the dependent variables to check for normality. A normal curve has skewness and kurtosis values that are equal to zero, so the further the values are from zero the more likely the data are not normally distributed (Field, 2005). Teacher likelihood of

intervention for the verbal scenarios was a negatively skewed (-2.01) and platykurtic (kurtosis = 3.09) distribution. Skewness values for teacher likelihood of using the strategies to respond to the verbal bullying scenarios ranged from .14 to 5.19 and are presented in Table 2.

Table 2

*Skewness and Kurtosis Values for Teacher Likelihood of Using the Strategies to Respond to the Verbal Bullying Scenarios*

Strategy	Skewness	Kurtosis
Do Nothing	5.19	27.41
Discuss it with Other Staff	-.72	-.27
Discuss it with Class	-.23	-1.16
Encourage Bully to Include Victim	.43	-.36
Encourage Students to Work It Out	.69	-.26
Have Bully Apologize	-1.36	1.30
Monitor for Future Situations	-2.44	6.08
Apply Discipline to Bully	-.53	-.94
Apply Discipline to Victim	2.97	9.35
Find Alternate Activity for Bully	1.35	.33
Find Alternate Activity for Victim	-.90	.21
Give Advice to Bully	-.75	-1.11
Give Advice to Victim	-1.40	1.07
Notify Bully's Parents	.29	-1.14
Notify Victim's Parents	.93	-.40
Refer Bully to Principal	.32	-1.20
Refer Victim to Principal	1.80	2.65
Refer Bully to Counselor	.14	-1.41
Refer Victim to Counselor	.14	-1.39
Talk to Bully	-1.43	.45
Talk to Victim	-1.17	-.34
Talk to Both	-.68	-1.40

Skewness (-.64) and kurtosis (-.62) values for teacher likelihood of intervention in the social exclusion scenarios were closer to zero than the values for the verbal scenarios, but still indicated negative skew and kurtosis. The skewness values for teacher likelihood of using the strategies to respond to the social exclusion scenarios ranged from -.08 to 2.56. The values for the strategies teachers used to respond to the social scenarios are presented in Table 3.

Table 3

*Skewness and Kurtosis Values for Teacher Likelihood of Using the Strategies to Respond to the Social Exclusion Scenarios*

Strategy	Skewness	Kurtosis
Do Nothing	2.56	8.11
Discuss it with Other Staff	.15	-.84
Discuss it with Class	-.08	-.96
Encourage Bully to Include Victim	-.43	-.49
Encourage Students to Work It Out	.30	-.52
Have Bully Apologize	-.40	-.77
Monitor for Future Situations	-1.85	3.61
Apply Discipline to Bully	1.12	.44
Apply Discipline to Victim	1.91	4.18
Find Alternate Activity for Bully	2.15	3.30
Find Alternate Activity for Victim	-.94	.58
Give Advice to Bully	-.81	-.88
Give Advice to Victim	-.98	-.37
Notify Bully's Parents	2.00	4.89
Notify Victim's Parents	2.11	5.96
Refer Bully to Principal	1.87	4.36
Refer Victim to Principal	2.01	5.67
Refer Bully to Counselor	1.37	1.18
Refer Victim to Counselor	1.15	.39
Talk to Bully	-.54	-1.36
Talk to Victim	-.69	-1.15
Talk to Both	-.57	-1.42

The Kolmogorov-Smirnoff and Shapiro-Wilk tests were conducted to further determine if the sample was significantly different from a normal distribution. A significant test indicates the sample distribution is not normally distributed, whereas a non-significant test indicates that the sample distribution is probably normal. The tests were significant for teacher ratings of likelihood of intervention in the verbal bullying and social exclusion scenarios, indicating that they are not normally distributed. The results of the Kolmogorov-Smirnoff and Shapiro-Wilk tests with teacher likelihood of intervention in the verbal bullying and social scenarios are presented in Table 4.

Table 4

*Tests of Normality for Teacher Ratings of Likelihood of Intervention in the Scenarios*

	Kolmogorov-Smirnov	Shapiro-Wilk
Likelihood of Intervention in Verbal Scenario	.47	.52
Likelihood of Intervention in Social Scenario	.26	.82

*Note.* All values significant at  $p < .001$ .

The Kolmogorov-Smirnoff and Shapiro-Wilk tests were also conducted with teacher ratings of likelihood of using the strategies to respond to the verbal bullying scenarios. The tests were significant, suggesting the sample is not normally distributed. The results of the tests with the verbal bullying scenarios are presented in Table 5.



Table 5

*Tests of Normality for Teacher Ratings of Likelihood of Using the Strategies to Respond to the Verbal Bullying Scenarios*

Strategy	Kolmogorov-Smirnov	Shapiro-Wilk
Do Nothing	.52	.22
Discuss it with Other Staff	.22	.86
Discuss it with Class	.17	.89
Encourage Bully to Include Victim	.22	.90
Encourage Students to Work It Out	.23	.87
Have Bully Apologize	.31	.74
Monitor for Future Situations	.48	.49
Apply Discipline to Bully	.22	.86
Apply Discipline to Victim	.49	.44
Find Alternate Activity for Bully	.41	.65
Find Alternate Activity for Victim	.25	.85
Give Advice to Bully	.27	.75
Give Advice to Victim	.27	.74
Notify Bully's Parents	.19	.88
Notify Victim's Parents	.25	.79
Refer Bully to Principal	.20	.88
Refer Victim to Principal	.37	.65
Refer Bully to Counselor	.16	.86
Refer Victim to Counselor	.17	.87
Talk to Bully	.32	.65
Talk to Victim	.31	.67
Talk to Both	.30	.69

*Note.* All values significant at  $p < .001$ .

The Kolmogorov-Smirnoff and Shapiro-Wilk tests were conducted with teacher ratings of likelihood of using the strategies to respond to the social exclusion scenarios. The tests were significant, indicating they were not normally distributed. The results of the tests for the social exclusion scenarios are presented in Table 6.

Table 6

*Tests of Normality for Teacher Ratings of Likelihood of Using the Strategies to Respond to the Social Exclusion Scenarios*

Strategy	Kolmogorov-Smirnov	Shapiro-Wilk
Do Nothing	.46	.51
Discuss it with Other Staff	.17	.91
Discuss it with Class	.16	.91
Encourage Bully to Include Victim	.22	.90
Encourage Students to Work It Out	.19	.90
Have Bully Apologize	.20	.90
Monitor for Future Situations	.35	.68
Apply Discipline to Bully	.27	.80
Apply Discipline to Victim	.43	.59
Find Alternate Activity for Bully	.48	.50
Find Alternate Activity for Victim	.24	.85
Give Advice to Bully	.27	.76
Give Advice to Victim	.28	.76
Notify Bully's Parents	.33	.67
Notify Victim's Parents	.35	.65
Refer Bully to Principal	.35	.68
Refer Victim to Principal	.40	.63
Refer Bully to Counselor	.32	.73
Refer Victim to Counselor	.30	.77
Talk to Bully	.25	.78
Talk to Victim	.28	.77
Talk to Both	.26	.74

*Note.* All values significant at  $p < .001$ .

Homogeneity of variance means that, in the case of group comparison designs, the variances in each condition are approximately equal. It can be assessed through a statistical test known as Levene's test. Homogeneity of covariance, an important assumption of multivariate analysis of variance (MANOVA), means that variances for each dependent variable are approximately equal in each group defined by the independent variables and the covariances between pairs of dependent variables are equal in all groups. Box's test can be used to examine the assumption of homogeneity of covariance. According to Field (2005), both Levene's test and Box's test should not be significant if the assumptions of homogeneity of variance and covariance have been met.

Levene's test was calculated for likelihood of intervention in the verbal and social scenarios with sex of the children and witness variables entered as factors. Box's tests were included as part of the ANOVA analyses and are discussed when the results of those analyses are presented. The variances for likelihood of intervention in both the verbal and social scenarios by sex of the children involved in the scenarios were equal. The results of Levene's test with sex of the children entered as a factor are presented in Table 7.

Table 7

*Tests of Homogeneity of Variance for Teacher Ratings of Likelihood of Intervention in the Scenarios Based on the Sex of Children Involved in the Bullying Scenarios*

	Levene Statistic	Significance
Likelihood of Intervention in Verbal Scenario	.37	.54
Likelihood of Intervention in Social Scenario	.06	.82

The variances for likelihood of intervention in the social scenarios by witness condition were equal. The variances for likelihood of intervention in the verbal scenarios by witness condition were not equal. Results of the Levene's tests are presented in Table 8.

Table 8

*Tests of Homogeneity of Variance for Teacher Ratings of Likelihood of Intervention in the Bullying Scenarios Based on Witness Condition*

	Levene Statistic	Significance
Likelihood of Intervention in Verbal Scenario	167.16	.00*
Likelihood of Intervention in Social Scenario	2.06	.15

Note. \* $p \leq .01$ .

*Descriptive statistics summary.* The descriptive statistics were calculated to test two of the important assumptions of parametric statistics. Collectively, the graphical and statistical analyses that were used to check the assumption of normality indicated that the sample data were not normally distributed. Levene's test, which was used to check the assumption of homogeneity of variance, indicated that violation of the assumption occurred for teacher ratings of likelihood of intervention in the verbal scenarios. ANOVA is considered to be robust to violations of normality and homogeneity of variance when sample sizes are equal (Field, 2005), which means that the validity of the ANOVA results are not likely to be affected by violation of the assumptions. The planned ANOVAs were conducted and the recommended approaches to handling the violations were used. Additionally, caution was used when interpreting the statistical analyses by lowering the alpha level.

*Covariates.* The demographic variables were analyzed to determine if any of the variables should be considered as covariates in the analyses of the hypotheses. Correlation and ANOVA procedures were used to analyze the variables in relationship to the dependent variables.

Pearson product moment correlations were conducted between the scale level variables, which included school size, number of students receiving free and reduced lunch, teacher age, and teacher class size, and the dependent variables, which were teacher ratings of likelihood of intervention in the verbal and social scenarios and their likelihood of using the strategies to respond to the scenarios. Significance and effect size were used as criteria to determine if a variable would be included as a covariate in the analyses. A significance level of  $p \leq .001$  was selected due to the

large number of correlations. Additionally, a significant correlation had to have an effect size ( $r$ ) of at least .32 or greater so that only variables with moderate correlations with the dependent variables would be considered as covariates.

There were no significant correlations of school size, number of students receiving free and reduced lunch, teacher age, and teacher class size with teacher ratings of likelihood of intervention in both the verbal and social scenarios. The correlations between the demographic variables and the likelihood of intervention variables are presented in Table 9.

Table 9

*Correlations for School Size, Number of Students Receiving Free and Reduced Lunch, Teacher Class Size, and Teacher Age with Teacher Ratings of Likelihood of Intervention in the Verbal and Social Exclusion Scenarios*

	School Size	Free and Reduced Lunch	Teacher Age	Teacher Class Size	Likelihood of Intervention in Verbal	Likelihood of Intervention in Social
School Size	–					
Free and Reduced Lunch	.79*	–				
Teacher Age	.06	.07	–			
Teacher Class Size	.22*	.21	.10	–		
Likelihood of Intervention in Verbal	.10	.12	.06	-.03	–	
Likelihood of Intervention in Social	-.06	-.05	-.03	-.10	.51*	–

Note. \* $p \leq .001$ .

The correlations between the demographic variables and teacher ratings of likelihood of using each of the strategies to respond to the verbal bullying scenarios were not significant. The correlations between the demographic variables and teacher ratings of likelihood of using the strategies for the verbal scenarios are presented in Table 10.



Table 10

*Correlations for School Size, Number of Students Receiving Free and Reduced Lunch, Teacher Class Size, and Teacher Age with Likelihood of Using the Strategies to Respond to the Verbal Scenarios*

Strategy	School Size	Free and Reduced Lunch	Teacher Age	Teacher Class Size
Do Nothing	-.06	-.02	.10	.04
Discuss it with Other Staff	.00	.04	.11	.11
Discuss it with Class	.09	.05	.17	.10
Encourage Bully to Include Victim	-.02	-.06	-.01	.06
Encourage Students to Work It Out	-.10	-.20	-.13	-.00
Have Bully Apologize	.03	.09	-.04	.06
Monitor for Future Situations	.03	.04	.05	-.03
Apply Discipline to Bully	-.04	.01	-.01	.12
Apply Discipline to Victim	-.01	-.10	-.07	-.06
Find Alternate Activity for Bully	.05	.01	-.03	-.07
Find Alternate Activity for Victim	-.13	-.11	.10	.04
Give Advice to Bully	-.05	-.04	-.04	-.03
Give Advice to Victim	.03	.04	.01	.03
Notify Bully's Parents	-.02	.02	.07	-.02
Notify Victim's Parents	-.00	.02	.06	-.02
Refer Bully to Principal	-.04	.06	.03	.08
Refer Victim to Principal	-.01	.00	-.06	-.10
Refer Bully to Counselor	.09	.03	.06	-.03
Refer Victim to Counselor	.16	.07	.15	.05
Talk to Bully	-.03	.07	.22	.00
Talk to Victim	.02	.07	.16	.09
Talk to Both	.02	-.03	-.18	.03

*Note.* \* $p \leq .001$ .

There was one significant correlation between the demographic variables and teacher ratings of likelihood of using the strategies for the social exclusion scenarios. The significant correlation was between the demographic variable, free and reduced lunch, and the strategy, “Encourage the Students to Work it Out,” although the magnitude was small ( $r = .26$ ). The effect size was below .30, so it was not considered as a covariate in the analyses. The correlations between the demographic variables and teacher ratings of likelihood of using the strategies to respond to the social scenarios are presented in Table 11.

Table 11

*Correlations for School Size, Number of Students Receiving Free and Reduced Lunch, Teacher Class Size, and Teacher Age with Likelihood of Using the Strategies to Respond to the Social Scenarios*

Strategy	School Size	Free and Reduced Lunch	Teacher Age	Teacher Class Size
Do Nothing	-.06	-.11	.05	.02
Discuss it with Other Staff	.02	.06	.14	.04
Discuss it with Class	.12	.12	.12	.18
Encourage Bully to Include Victim	-.08	-.08	-.09	-.06
Encourage Students to Work It Out	-.13	-.26*	-.10	-.10
Have Bully Apologize	-.03	-.00	-.01	.05
Monitor for Future Situations	-.04	.04	.03	-.13
Apply Discipline to Bully	-.06	-.05	-.02	.05
Apply Discipline to Victim	.01	-.07	-.03	.11
Find Alternate Activity for Bully	.13	.05	-.00	.03
Find Alternate Activity for Victim	-.13	-.03	.03	-.03
Give Advice to Bully	.09	.12	.06	-.06
Give Advice to Victim	.08	.02	-.09	-.06
Notify Bully's Parents	-.12	-.02	.11	.02
Notify Victim's Parents	-.07	-.04	.15	.09
Refer Bully to Principal	-.11	-.01	.07	.04
Refer Victim to Principal	-.11	-.06	.11	.03
Refer Bully to Counselor	.05	.01	.09	.03
Refer Victim to Counselor	.17	.06	.05	.12
Talk to Bully	.04	.11	.11	-.09
Talk to Victim	.07	.15	.11	-.02
Talk to Both	.01	-.02	-.06	-.01

Note. \* $p \leq .001$ .

ANOVA was used to compare likelihood of intervention in the bullying scenarios with the nominal level demographic variables, which included state and geographic location of the school in which the teachers worked, as well as whether the teachers' schools had presented bullying training and implemented bullying intervention programs. A 2 x 2 (State x Geographic Location) ANOVA was conducted with likelihood of intervention as the dependent variable to determine if the state (i.e., Maine, Massachusetts, or New Hampshire) and geographic location of the school (i.e., urban, rural, or suburban) had an effect on teacher ratings of likelihood of intervention. The results of the ANOVA were not significant and indicated that state and geographic location do not need to be included as covariates in the analyses of the hypotheses. A 2 x 2 (Training x Program) ANOVA was conducted with likelihood of intervention as the dependent variable to determine if exposure to bullying intervention training and intervention programs had an effect on teacher ratings of likelihood of intervention. The results of the ANOVA were not significant, so these two variables will not be included as covariates in further analyses.

*Analysis of covariates summary.* The demographic variables were analyzed through correlation and ANOVA procedures to determine if any of the variables should be considered as covariates in the analyses of the hypotheses. There were no significant correlations of school size, number of students receiving free and reduced lunch, teacher age, and teacher class size with likelihood of intervention in the scenarios and for teacher ratings of likelihood of using the strategies to respond to the scenarios. State and geographic location of the schools, exposure to bullying

intervention training, and bullying prevention and intervention programs in the schools in which the teachers worked did not have effects on teacher ratings of likelihood of intervention. These tests of the demographic variables indicated that none of the demographic variables needed to be included as covariates in the hypothesis testing analyses.

*Proportionality.* Chi-square and ANOVA procedures were used to verify that similar proportions of teachers received the various conditions of the study, as well as to determine if the demographic variables associated with the teachers in each cell were proportional. Chi-square tests were conducted for the sex of children and witness factors to the number of participants, state in which the school was located, geographic location of the school, grade level taught, and whether the school had presented bullying intervention training to teachers and implemented a bullying intervention program. The number of participants in each of the sex and witness cells was proportional. There were no disproportional cells for teachers who had received bullying intervention training versus those who had not. Likewise, there were no disproportional cells for those participants whose schools had implemented bullying intervention programs versus those who had not. The cells were proportional in terms of grade level taught, state in which the school was located, and the geographic location of the schools.

A 2 x 2 (Sex of Children x Witness Condition) ANOVA was conducted with age of the teachers as the dependent variable to determine if there were any age differences for the teachers within the four cells of the study. The repeated factor, type of bullying, did not need to be included in the analysis because teachers rated

both types of bullying. There were no significant effects of sex of children and witness condition on age of teacher, which indicated there were no age differences among teachers in the four groups.

*ANOVA for teacher likelihood of intervention in the bullying scenarios.* The first two research questions were designed to examine differences in the likelihood of teacher intervention in the bullying scenarios based on the type of bullying, whether or not it was witnessed, and the sex of children involved in the scenarios. The first hypothesis was that female elementary school teachers are more likely to say they would intervene in witnessed verbal bullying situations than social exclusion bullying and those situations they do not witness. The second hypothesis stated that female elementary school teachers are more likely to say they would intervene in verbal and social exclusion bullying that occurs between boys than verbal and social bullying that occurs between girls. A 2 x 2 x 2 (Sex of Children x Witness Condition x Type of Bullying) mixed ANOVA was conducted to test the hypotheses. Witness condition and sex of children involved in the bullying were between-group variables. Type of bullying was a within-groups or repeated variable. The dependent variable was likelihood of intervention.

*Analysis of covariance (ANCOVA).* The third research question was designed to examine the effect of teaching experience and sex of the children involved in the bullying scenarios on teacher likelihood of intervention. The third hypothesis was that years of teaching experience will not be related to female elementary school teacher ratings of likelihood of intervention in the verbal and social exclusion bullying scenarios. A 2 x 2 x 2 (Sex of Children x Witness Condition x Type of Bullying)

ANCOVA was conducted to test this hypothesis. The covariate was teacher years of teaching experience and the dependent variable was teacher ratings of likelihood of intervention.

*MANOVAs for the types of strategies teachers used to respond to the bullying scenarios.* The fourth and fifth research questions were focused on the types of strategies teachers said they would use in response to the bullying scenarios. The fourth hypothesis was female elementary school teachers are likely to say they would use similar types of strategies to intervene in witnessed and non-witnessed verbal and social exclusion bullying situations. The fifth hypothesis stated that female elementary school teachers are more likely to say they would use disciplinary types of strategies to intervene in verbal and social exclusion bullying situations that involve boys in comparison to verbal bullying and social exclusion situations among girls. Correlational patterns of the strategies were examined and exploratory factor analysis was conducted with the strategies to determine which variables should be held as dependent variables in each of the analyses. A series of MANOVAs were conducted to test the fourth and fifth hypotheses.

*MANOVA for the numbers of strategies teachers used to respond to the bullying scenarios.* The last research question was focused on differences in teacher likelihood of using the strategies to respond to the bullying scenarios based on their years of teaching experience. The sixth hypothesis was that female elementary school teachers with fewer years of teaching experience will be more likely to say they would use more strategies to intervene in verbal and social exclusion bullying than female elementary school teachers who have more years of teaching experience. A 2 x 2 x 3

x 2 (Sex of Children x Witness Condition x Years of Teaching Experience x Type of Bullying) mixed MANOVA was conducted. The dependent variables were number of strategies teachers used to respond to the scenarios.



## Chapter 4

### Results

#### *Descriptive Statistics*

Descriptive statistics, including means, standard deviations, and ranges were calculated for the dependent variables. Teachers rated their likelihood of intervention in the bullying scenarios on a scale from 1 (*not at all likely*) to 5 (*very likely*). Teachers were *likely* to intervene in both types of scenarios, but verbal scenarios received slightly higher ratings for likelihood of intervention than the social scenarios. The means, standard deviations, and ranges for likelihood of intervention in the verbal and social exclusion scenarios are presented in Table 12.

Table 12

*Means, Standard Deviations, and Ranges for Teacher Ratings of Likelihood of Intervention in the Verbal Bullying and Social Exclusion Scenarios*

Scenario	Mean	Standard Deviation	Minimum	Maximum
Likelihood of Intervention in Verbal Bullying	4.74 <sup>a</sup>	.54	3	5
Likelihood of Intervention in Social Exclusion	4.13 <sup>b</sup>	.89	2	5

*Note.* Likelihood of intervention was rated from 1 (*not at all likely*) to 5 (*very likely*).

<sup>a</sup>*n* = 205. <sup>b</sup>*n* = 202.

Means and standard deviations were calculated for the four distinct types of scenarios by sex of the children involved in the scenarios. The verbal witnessed scenarios received the highest likelihood of intervention ratings of the four types of scenarios, whereas the social not witnessed scenarios received the lowest. Means and standard deviations of teacher ratings of likelihood of intervention in the four types of scenarios are presented in Table 13.

Table 13

*Means and Standard Deviations for Likelihood of Intervention by Scenario Type*

Scenario	Boys			Girls		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Verbal Witness	55	4.96	.19	56	4.93	.26
Verbal Not Witness	47	4.54	.69	47	4.51	.66
Social Witness	53	4.37	.82	58	4.45	.73
Social Not Witness	45	3.82	.97	46	3.70	.88

*Note.* Likelihood of intervention was rated from 1 (*not at all likely*) to 5 (*very likely*).

Teachers rated their likelihood of using 14 strategies to respond to the bullying scenarios on a scale from 1 (*not at all likely*) to 5 (*very likely*). Half of the strategies also required teachers to indicate if they would use the strategy for the bully or the victim by placing a check mark next to the bully or victim's name. Teachers could check both names if they would use the strategy for both students. One of the strategies had three possibilities because teachers could check the victim, the bully, or

both of the students together. These seven strategies were entered in the data file as separate variables, so there are a total of 22 possible strategies to respond to the bullying scenarios.

The means and standard deviations for teacher ratings of likelihood of using the strategies were calculated for the verbal and social scenarios. Generally, teacher ratings for likelihood of using the strategies were higher for the verbal scenarios than the social exclusion scenarios. The means and standard deviations for teacher ratings of likelihood of using the strategies to respond to the scenarios are presented in Table 14.

Table 14

*Means and Standard Deviations for Teacher Ratings of Likelihood of Using the Strategies to Respond to the Verbal Bullying and Social Exclusion Scenarios*

Strategy	Verbal		Social	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Do Nothing	1.15	.65	1.29	.62
Discuss it with Other Staff	3.71	1.19	2.69	1.18
Discuss it with Your Class	3.14	1.38	3.04	1.28
Encourage Bully to Include Victim	2.69	1.07	3.56	1.08
Encourage Students to Work it Out	2.25	1.12	2.74	1.16
Have Bully Apologize	4.23	1.03	3.47	1.20
Monitor for Future Situations	4.77	.52	4.44	.88
Apply Discipline to Bully	3.54	1.35	2.06	1.17
Apply Discipline to Victim	1.22	.56	1.33	.57
Find Alternate Activity for Bully	1.81	1.34	1.50	1.12
Find Alternate Activity for Victim	3.76	1.15	3.83	1.08
Give Advice to Bully	3.59	1.62	3.62	1.54
Give Advice to Victim	4.05	1.22	3.74	1.42
Notify Bully's Parents	2.77	1.40	1.57	.85
Notify Victim's Parents	2.14	1.34	1.52	.79
Refer Bully to Principal	2.76	1.41	1.53	.78
Refer Victim to Principal	1.64	1.04	1.40	.65
Refer Bully to Counselor	2.88	1.51	1.81	1.10
Refer Victim to Counselor	2.85	1.50	1.90	1.15
Talk to Bully	4.06	1.46	3.40	1.64
Talk to Victim	3.92	1.57	3.49	1.60
Talk to Both	3.58	1.77	3.46	1.70

*Note.* Likelihood of intervention was rated 1 (*not at all likely*) to 5 (*very likely*).

*Hypothesis 1: Likelihood of Intervention*

Mixed ANOVA was conducted to test this hypothesis because it can assess the effects of both the between-group and within-subject variables, as well as examine how the variables interact with each other and the effect these interactions have on the dependent variable. A 2 x 2 x 2 (Sex of Children x Witness Condition x Type of Bullying) mixed ANOVA was conducted. Witness condition and sex of the children involved in the bullying were the between-subjects variables and type of bullying was the repeated variable. Teacher likelihood of intervention in the scenarios served as the dependent variable.

The basic assumptions of parametric statistics, including independence of the non-repeated factors, normality, and homogeneity of variance, apply to mixed ANOVAs. An additional assumption of homogeneity of variance, known as sphericity, has to be applied to mixed ANOVA due to the repeated measures involved in the analysis. Sphericity, which applies when the same participant provides more than two scores, assumes that there are equal variances for the differences between the scores (Fields, 2005).

Teachers provided likelihood of intervention ratings for only two scenarios, so sphericity is not a concern for this analysis. Levene's test was significant for likelihood of intervention in the verbal scenario,  $F(3, 196) = 54.60, p < .001$ , but not for likelihood of intervention in the social scenario,  $F(3, 196) = .83, p = .48$ , which means that the assumption of homogeneity of variance was violated for the verbal scenarios. ANOVA is regarded as being fairly robust to violation of the assumption of homogeneity of variance when sample sizes are equal (Field, 2005), however the

information regarding the violation of the assumption should be considered when interpreting the results of the analysis. Caution was used when interpreting the results of the analysis through the use of a lower alpha level ( $p \leq .01$ ).

The main effect for type of bullying was significant,  $F(1, 196) = 128.85, p < .001$ . Partial eta-squared ( $\eta_p^2$ ), which is an indicator of effect size, was equal to .40 for type of bullying. This signified a large effect, as type of bullying accounted for 40% of the variance in likelihood of intervention. The estimated marginal means indicated teacher ratings of likelihood of intervention were higher for the verbal scenarios than for the social exclusion scenarios ( $M_{verbal} = 4.72; M_{social} = 4.10$ ).

There was a significant main effect for witness condition,  $F(1, 196) = 40.07, p < .001, \eta_p^2 = .17$ . The main effect signified a medium effect, as witness condition accounted for 17% of the variance in likelihood of intervention. The marginal means indicated that teacher ratings of likelihood of intervention were higher when the bullying was witnessed than when it was not ( $M_{witness} = 4.67, M_{not\ witness} = 4.15$ ).

There were no significant interaction effects of type of bullying, witness condition, and sex of children involved in the bullying. The results of the ANOVA are presented in Table 15.

Table 15

*ANOVA for Teacher Likelihood of Intervention in the Bullying Scenarios*

Source	<i>df</i>	<i>F</i>	$\eta_p^2$	<i>p</i>
Between subjects				
Sex of Children	1	.05	.00	.791
Witness Condition	1	26.85	.17	.000*
Sex x Witness	1	.34	.00	.479
Error	196	(.67)		
Within subjects				
Type of Bullying	1	128.85	.40	.000*
Type x Sex	1	.06	.00	.811
Type x Witness	1	2.70	.01	.102
Type x Witness x Sex	196	.49	.00	.487
Error (Type)	196	(.30)		

*Note.* Values enclosed in parentheses represent means squares.

*N* = 200.

\**p* ≤ .01.

*Hypothesis 2: Relationship of Sex Differences to Likelihood of Intervention*

This hypothesis was tested as part of the 2 x 2 x 2 (Sex of Children x Witness Condition x Type of Bullying) mixed ANOVA that was conducted to test the first hypothesis. It was previously noted that teachers provided likelihood of intervention ratings for only two scenarios, so sphericity is not a concern for this analysis. Levene's test was significant for likelihood of intervention in the verbal scenario, but not for the social scenario, indicating that the assumption of homogeneity of variance was violated for the verbal scenarios. ANOVA is regarded as being fairly robust to violation of the assumption of homogeneity of variance when sample sizes are equal (Field, 2005). Caution was used though when interpreting the results of the analysis through the use of a lower alpha level ( $p \leq .01$ ).

The main effect of sex of children involved in the bullying was not significant. There were no significant interaction effects of sex of children with witness condition or type of bullying. Refer to Table 15 for the results of the 2 x 2 x 2 ANOVA.

*Hypothesis 3: Relationship of Teaching Experience to Likelihood of Intervention*

ANCOVA was used to test this hypothesis because it could determine if the contribution of years of teaching experience variable on teacher ratings of likelihood of intervention was significant and if sex of the children, witness condition, and type of bullying significantly predicted likelihood of intervention over and above years of teaching experience. A 2 x 2 x 2 (Sex of Children x Witness Condition x Type of Bullying) ANCOVA was conducted. Witness condition and the sex of the children involved in the bullying scenarios were the between-subjects variables and type of



bullying was the repeated variable. The covariate was years of teaching experience.

Teacher likelihood of intervention in the scenarios was the dependent variable.

Assumptions of ANCOVA are the same as for ANOVA (i.e., independence, normality, and homogeneity of variance), but with an additional assumption related to linearity, which refers to a linear relationship between the covariate and the dependent variable. Scatterplots can be used to check whether or not linearity exists. Data that falls in a straight line or in a straight cluster that is straight signifies a linear relationship between the variables (Leech, Barrett, & Morgan, 2005). The assumption of homogeneity of regression slopes means that the linear relationship between the covariate and dependent variable (i.e. slope of the regression line) is the same for each group when ANCOVA is performed (Field, 2005). The  $F$  test on the interaction of the independent variables with the covariate is used to check this assumption. Violation of the assumption of homogeneity of regression slopes occurs when the  $F$  test is significant.

Scatterplots of years of teaching experience and teacher ratings of likelihood of intervention in the bullying scenarios indicated that there were linear relationships between the two variables. The  $F$  test for the Sex of Children x Witness Condition x Years of Teaching Experience x Type of Bullying interaction was not significant,  $F(1, 191) = .41, p = .53$ , indicating that the assumption of homogeneity of slopes was not violated. Levene's test was significant for likelihood of intervention in the verbal scenario,  $F(3, 192) = 33.20, p < .001$ , but not for likelihood of intervention in the social scenario,  $F(3, 192) = 1.01, p = .39$ , which means that the assumption of

homogeneity of variance was violated for the verbal scenarios. Caution was used by using a lower alpha level ( $p \leq .01$ ) when interpreting the results of the ANCOVA.

There was a significant main effect for type of bullying,  $F(1, 191) = 28.12$ ,  $p < .01$ ,  $\eta_p^2 = .13$ . This significant main effect indicates that, after controlling for years of teaching experience, likelihood of intervention was different based on the type of bullying. The main effect signifies a medium effect, as it explained 13% of the variance in teacher likelihood of intervention. Marginal means were examined to determine where the differences occurred. Teacher ratings of likelihood of intervention were higher for the verbal bullying scenarios ( $M = 4.72$ ) than for the social exclusion scenarios ( $M = 4.10$ ).

There was a significant main effect for witness condition,  $F(1, 191) = 38.12$ ,  $p < .001$ ,  $\eta_p^2 = .17$ . The significant main effect indicates that, after controlling for years of teaching experience, likelihood of intervention was different based on whether or not the bullying was witnessed. The main effect signifies a medium effect, as it explained 17% of the variance in teacher likelihood of intervention. The marginal means indicated that teacher ratings of likelihood of intervention were higher when the bullying was witnessed than when it was not ( $M_{witness} = 4.67$ ;  $M_{not\ witness} = 4.15$ ).

There were no other significant main effects or interactions. The results of the ANCOVA are presented in Table 16.

Table 16

*ANCOVA for Teacher Likelihood of Intervention in Bullying with Years of Teaching Experience as a Covariate*

Source	<i>df</i>	<i>F</i>	$\eta_p^2$	<i>p</i>
Between subjects				
Years Experience	1	.34	.00	.563
Sex of Children	1	.08	.00	.781
Witness Condition	1	38.12	.17	.000*
Sex x Witness	1	.99	.01	.320
Error	191	(.67)		
Within subjects				
Type of Bullying	1	28.12	.13	.000*
Type x Years Experience	1	.04	.00	.852
Type x Sex	1	.16	.00	.689
Type x Witness	1	2.72	.01	.101
Type x Sex x Witness	1	.73	.00	.393
Error (Type)	191	(.30)		

*Note.* Values enclosed in parentheses represent means squares.

*N* = 196.

\**p* ≤ .01.

*Hypothesis 4: Teacher Responses to Different Types of Bullying*

Two MANOVAs were conducted to test this hypothesis. ANOVA examines the effects of one or more independent variables on one dependent variable, whereas MANOVA is used when there are multiple dependent variables. Mixed MANOVA analyzes differences between and within the levels of the independent variables with respect to a combination of the dependent variables.

A 2 x 2 x 12 (Sex of Children x Witness Condition x Referral to Other Adults) mixed MANOVA was conducted. Sex of the children involved in the bullying and witness condition were between group variables. Referral to other adults was the repeated variable. Teacher ratings for likelihood of using the strategies to respond to the bullying scenarios served as the dependent variables.

A 2 x 2 x 12 (Sex of Children x Witness Condition x Teacher Actions) mixed MANOVA was conducted. Sex of the children involved in the bullying and witness condition were between group variables. Teacher actions was the repeated variable. Teacher ratings for likelihood of using the strategies to respond to the bullying scenarios served as the dependent variables.

*Strategy grouping.* There were a large number of strategies that teachers could use to respond to the bullying scenarios so they were separated into groups in order to conduct MANOVAs that were empirically meaningful. The strategies were divided into groups through theoretical and statistical methods. First, the strategies were examined to determine theoretical groupings. The 22 strategies were separated into four categories: adult-directed strategies, watch and wait strategies, bystander-

directed strategies, and bully and victim-directed strategies. The specific strategies that formed each of the categories are presented in Table 17.

Table 17

*Categorization of the Strategies Teachers Used to Respond to the Bullying Scenarios*

Category	Strategy
Adult-Directed	Discuss the situation with other staff members Apply discipline to the bully Apply discipline to the victim Refer the bully to the principal Refer the victim to the principal Refer the bully to the counselor Refer the victim to the counselor Notify the parents of the bully Notify the parents of the victim
Bully-Victim Directed	Encourage the bully to include the victim Have the bully apologize to the victim Give advice to the bully Give advice to the victim Talk with the bully individually Talk with the victim individually Talk with both students together
Bystander Directed	Discuss the situation with your class Encourage the students to work it out themselves Find an alternative student or activity to provide support for bully Find an alternative student or activity to provide support for victim
Watch and Wait	Do nothing Monitor/watch for future situations

Correlations between teacher likelihood of use ratings for each of the strategies to respond to the verbal scenarios were examined to determine if there was support for the proposed categorization of the strategies. A correlation was considered to be significant when  $p \leq .001$ , due to the large number of correlations that were calculated. The magnitude of the significant correlations was also considered. A correlation was regarded as important when it had a medium effect size ( $r \geq .32$ ).

The pattern of correlations of the strategies used for the verbal scenarios provided general support for the adult-directed category. All but one of the nine strategies were significantly correlated with each other, but four of them were also significantly correlated with strategies that were included in the other categories. Four of the seven strategies that formed the bully-victim directed category were correlated with each other (one of which was also correlated with strategies in other categories), but three of them were not correlated with any of the others in that category. The four strategies in the bystander category were not significantly correlated with each other, although three of them were significantly correlated with other strategies. The two strategies in the watch and wait category were not significantly correlated with each other or with any other strategies. The correlations between the strategies teachers used for the verbal scenarios are presented in Table 18.

Table 18

*Correlations of Teacher Ratings for Likelihood of Using the Strategies to Respond to the Verbal Scenarios*

	1	2	3	4	5	6	7	8	9	10	11
1. Do Nothing	—										
2. Discuss it with Other Staff	-.04	—									
3. Discuss it with Your Class	-.07	.42*	—								
4. Encourage Bully to Include Victim	-.05	.09	.32*	—							
5. Encourage Students to Work it Out	-.05	-.16	.02	.42*	—						
6. Have Bully Apologize	.03	.26*	.29*	.28*	.02	—					
7. Monitor for Future Situations	-.05	.27*	.18	.10	-.03	.30*	—				
8. Apply Discipline to Bully	-.01	.34*	.19	.12	-.12	.46*	.30*	—			
9. Apply Discipline to Victim	-.01	-.17	-.12	.04	.17	-.10	-.22	-.30*	—		
10. Find Alternate Activity for Bully	.13	-.08	-.02	.15	.20	.12	-.04	.02	.22	—	
11. Find Alternate Activity for Victim	-.08	.23	.20	.15	.02	.28*	.33*	.33*	-.06	-.01	—
12. Give Advice to Bully	-.04	.13	.20	.28*	.14	.31*	.27*	.27*	.01	.11	.25*
13. Give Advice to Victim	.00	.12	.21	.24*	.17	.18	.16	.17	-.05	.16	.31*
14. Notify Bully's Parents	-.08	.35*	.22	.07	-.12	.33*	.24	.41*	-.12	.02	.24*
15. Notify Victim's Parents	.06	.20	.19	.11	.02	.16	.10	.22	-.02	.08	.22
16. Refer Bully to Principal	.06	.36*	.20	-.01	-.23	.30*	.14	.40*	-.17	-.02	.11
17. Refer Victim to Principal	.03	.11	.01	.09	.05	.09	.07	.08	.09	.06	.07
18. Refer Bully to Counselor	-.08	.39*	.13	-.02	-.13	.19	.25*	.31*	-.15	.05	.18
19. Refer Victim to Counselor	-.01	.42*	.16	.07	-.10	.25*	.20	.29*	-.09	-.02	.25*
20. Talk to Bully	-.01	.15	.10	.12	-.09	.10	.26*	.25*	-.18	-.02	.26*
21. Talk to Victim	.02	.15	.13	.17	-.07	.08	.22	.23	-.13	-.04	.26*
22. Talk to Both	-.03	.06	.01	.26*	.20	.24	.05	.16	-.01	.13	.09

*Note.* \* $p \leq .01$ .



Table 18 Continued

*Correlations of Teacher Ratings for Likelihood of Using the Strategies to Respond to the Verbal Scenarios*

	12	13	14	15	16	17	18	19	20	21	22
1. Do Nothing											
2. Discuss it with Other Staff											
3. Discuss it with Your Class											
4. Encourage Bully to Include Victim											
5. Encourage Students to Work it Out											
6. Have Bully Apologize											
7. Monitor for Future Situations											
8. Apply Discipline to Bully											
9. Apply Discipline to Victim											
10. Find Alternate Activity for Bully											
11. Find Alternate Activity for Victim											
12. Give Advice to Bully	.28*										
13. Give Advice to Victim	.16	.10									
14. Notify Bully's Parents	.15	.26*	.48*								
15. Notify Victim's Parents	-.04	.02	.61*	.37*							
16. Refer Bully to Principal	.09	.12	.10	.32*	.19						
17. Refer Victim to Principal	.17	.22	.50*	.28*	.46*	.26*					
18. Refer Bully to Counselor	.14	.22	.45*	.52*	.47*	.27*	.64*				
19. Refer Victim to Counselor	.13	.17	.37*	.17	.25*	.07	.21	.16			
20. Talk to Bully	.10	.26*	.32*	.22	.28*	.11	.26*	.24	.87*		
21. Talk to Victim	.28*	.23	-.05	.02	-.09	.16	.07	.03	-.03	.09	
22. Talk to Both											

Note. \* $p \leq .01$ .

The pattern of correlations of the strategies used for the social scenarios provided support for the adult-directed and bully-victim directed categories. All but one of the nine strategies in the adult-directed category were significantly correlated with each other, but four of them were also significantly correlated with strategies that were included in the other categories. Six of the seven strategies that formed the bully-victim directed category were correlated with each other, two of which was also correlated with strategies in other categories. The four strategies in the bystander category were not significantly correlated with each other, although three of them were significantly correlated with other strategies. The two strategies in the watch and wait category were not significantly correlated with each other or with any of the other strategies. The correlations between the strategies for the social scenarios are presented in Table 19.

Table 19

*Correlations of Teacher Ratings for Likelihood of Using the Strategies to Respond to the Social Scenarios*

	1	2	3	4	5	6	7	8	9	10	11
1. Do Nothing	—										
2. Discuss it with Other Staff	-.14	—									
3. Discuss it with Your Class	-.10	.43*	—								
4. Encourage Bully to Include Victim	-.10	.26*	.27*	—							
5. Encourage Students to Work it Out	.07	-.07	.12	.39*	—						
6. Have Bully Apologize	-.08	.27*	.38*	.36*	.17	—					
7. Monitor for Future Situations	-.15	.32*	.19	.32*	.07	.28*	—				
8. Apply Discipline to Bully	.01	.23*	.23	.20	.07	.38*	.22	—			
9. Apply Discipline to Victim	.07	-.02	-.03	.03	.12	.10	-.09	.15	—		
10. Find Alternate Activity for Bully	.03	.16	.16	.11	.17	.16	.02	.14	.17	—	
11. Find Alternate Activity for Victim	.01	.13	.10	-.02	.02	.14	.31*	.21	-.03	-.05	—
12. Give Advice to Bully	-.11	.22	.24	.29*	.05	.42*	.20	.27*	.02	.09	.16
13. Give Advice to Victim	-.19	-.05	.11	.07	.08	.11	.16	.19	.02	.05	.21
14. Notify Bully's Parents	.00	.40*	.26*	.25*	.01	.33*	.20	.47*	.06	.11	.21
15. Notify Victim's Parents	.04	.37*	.23	.22	.03	.30*	.17	.31*	.12	.19	.20
16. Refer Bully to Principal	.03	.41*	.26*	.13	.00	.32*	.15	.42*	.05	.14	.13
17. Refer Victim to Principal	.11	.43*	.18	.18	.01	.21	.12	.20	.11	.26*	.11
18. Refer Bully to Counselor	-.08	.42*	.33*	.20	.06	.21	.25*	.25*	.07	.20	.13
19. Refer Victim to Counselor	-.04	.41*	.23	.14	-.04	.16	.17	.24	.05	.17	.12
20. Talk to Bully	-.04	.19	.18	.14	-.08	.18	.18	.22	-.10	.07	.23
21. Talk to Victim	-.02	.13	.10	.05	-.08	.01	.13	.13	-.15	.02	.26*
22. Talk to Both	-.22	.16	.26*	.34*	.10	.40*	.20	.23	-.05	.13	-.05

*Note.* \* $p \leq .01$

Table 19 Continued

*Correlations of Teacher Ratings for Likelihood of Using the Strategies to Respond to the Social Scenarios*

	12	13	14	15	16	17	18	19	20	21	22
1. Do Nothing											
2. Discuss it with Other Staff											
3. Discuss it with Your Class											
4. Encourage Bully to Include Victim											
5. Encourage Students to Work it Out											
6. Have Bully Apologize											
7. Monitor for Future Situations											
8. Apply Discipline to Bully											
9. Apply Discipline to Victim											
10. Find Alternate Activity for Bully											
11. Find Alternate Activity for Victim											
12. Give Advice to Bully	.16										
13. Give Advice to Victim	.29*	.03									
14. Notify Bully's Parents	.23	.13	.79*								
15. Notify Victim's Parents	.15	.04	.70*	.58*							
16. Refer Bully to Principal	.20	.08	.49*	.52*	.70*						
17. Refer Victim to Principal	.23	.04	.50*	.50*	.62*	.50*					
18. Refer Bully to Counselor	.12	.18	.45*	.51*	.53*	.45*	.68*				
19. Refer Victim to Counselor	.32*	.10	.24	.15	.17	.18	.08	.08			
20. Talk to Bully	.17	.21	.14	.13	.10	.15	.01	.11	.80*		
21. Talk to Victim	.38*	.19	.14	.20	.13	.17	.12	.06	.04		
22. Talk to Both											-.06

Note. \* $p \leq .01$ .

A requirement of MANOVA is that dependent measures are correlated (Weinfurt, 1995), therefore, the relationships between the strategies needed to be examined to determine which strategies would be grouped together for the MANOVAs. The theoretical groupings were not supported by the correlations between the strategies. The correlations of teacher ratings for likelihood of using the strategies to respond to the verbal bullying and social exclusion scenarios were examined to determine which of the strategies did not correlate with any others, as well as those that correlated too highly in order to determine which variables would be entered into a factor analysis.

The correlations between the verbal strategies and the social strategies were examined to determine how the strategies were related and if the verbal strategies correlated with likelihood of using their corresponding social strategies. Seventeen of the 22 verbal and social strategies were significantly correlated at .32 or higher with their corresponding strategy and/or other strategies, but the remaining 5 strategies were not. Seven of the 22 strategies were eliminated from the factor analysis because they were not significantly correlated at .32 or above with other strategies for both the verbal and social strategies: “Do nothing,” “Encourage the students to work it out themselves,” “Apply discipline to the victim,” “Find an alternative student or activity to provide support for the bully,” “Give advice to the victim,” “Refer the victim to the principal,” and “Talk with both students together.” Two strategies, “Talk with the bully individually” and “Talk with the victim individually” were significantly and highly correlated for the verbal scenarios ( $r = .87$ ) and the social scenarios ( $r = .80$ ),

so those two strategies were also excluded from the analysis due to their high correlations.

Table 20

*Correlations of Strategies Teachers Used to Respond to the Verbal and Social Scenarios*

	Social Do Nothing	Social Discuss Staff	Social Discuss Class	Social Encourage Bully	Social Encourage Students	Social Bully Apologize	Social Monitor	Social Discipline Bully	Social Discipline Victim	Social Alt. Activity - Bully	Social Alt. Activity - Victim
Verbal Do Nothing	.06	-.03	-.11	-.16	.00	.03	-.00	-.08	-.05	-.05	.07
Verbal Discuss - Staff	-.07	.57*	.38*	.21	.01	.22	.26*	.15	-.13	.06	.06
Verbal Discuss - Class	.00	.30*	.70*	.26*	.18	.29*	.18	.16	-.05	.16	.05
Verbal Encourage Bully	.12	.12	.24*	.45*	.23	.33*	.09	.22	.10	.20	.08
Verbal Encourage Students	.07	-.04	.07	.21	.48*	.08	-.04	.02	.08	.06	-.00
Verbal Bully Apologize	.01	.26*	.24*	.29*	.12	.59*	.20	.29*	.06	.07	.15
Verbal Monitor	-.09	.15	.16	.20	.07	.24	.60*	.16	-.09	-.03	.35*
Verbal Discipline - Bully	-.05	.23	.21	.20	.09	.32*	.21	.45*	.02	.10	.13
Verbal Discipline - Victim	.11	-.03	-.19	-.08	.04	-.11	-.05	-.05	.32*	-.02	-.13
Verbal Alt. Activity - Bully	-.04	.07	-.01	.00	.14	.09	.00	.09	.01	.28*	.01
Verbal Alt. Activity - Victim	-.08	.15	.23	.17	.11	.23	.33*	.29*	-.02	.13	.51*
Verbal Advice to Bully	.04	.08	.15	.27*	.21	.24*	.34*	.19	.02	.04	.27*
Verbal Advice to Victim	-.12	.11	.28*	.06	.07	.21	.23	.13	-.04	.16	.25*
Verbal Notify Bully's Parents	.00	.31*	.25*	.23	.04	.30*	.19	.35*	.09	.09	.16
Verbal Notify Victim's Parents	.07	.19	.22	.15	-.04	.27*	.12	.33*	.07	.11	.06
Verbal Bully to Principal	.06	.29*	.19	.17	-.02	.25*	.10	.36*	.01	.06	.10
Verbal Victim to Principal	.17	.08	.04	.07	-.02	.10	.04	.03	.08	.10	.05
Verbal Bully to Counselor	-.00	.34*	.21	.13	.04	.13	.20	.18	-.05	.16	.17
Verbal Victim to Counselor	-.02	.38*	.28*	.16	-.00	.29*	.21	.30*	-.01	.12	.22
Verbal Talk to Bully	.06	.08	.15	.12	-.01	.11	.15	.19	-.09	-.00	.27*
Verbal Talk to Victim	.12	.03	.14	.07	.02	.11	.11	.16	-.06	.03	.24
Verbal Talk to Both	-.13	.08	.04	.17	.09	.19	.11	.19	-.03	.11	.06

Note. \* $p \leq .01$ .

Table 20 Continued

*Correlations of Strategies Teachers Used to Respond to the Verbal and Social Scenarios*

	Social Advice to Bully	Social Advice to Victim	Social Notify Bully's Parents	Social Notify Victim's Parents	Social Bully to Principal	Social Victim to Principal	Social Bully to Counselor	Social Victim to Counselor	Social Talk to Bully	Social Talk to Victim	Social Talk to Both
Verbal Do Nothing	-.03	.09	.00	-.06	.05	.11	.01	-.03	.07	.01	-.11
Verbal Discuss - Staff	.23	-.03	.24*	.19	.12	.13	.24*	.20	.23	.11	.08
Verbal Discuss - Class	.08	.06	.19	.17	.15	.07	.23	.13	.15	.10	.16
Verbal Encourage Bully	.27*	.17	.20	.21	.17	.23	.14	.11	.19	.09	.26*
Verbal Encourage Students	.02	.17	.03	.09	.09	.09	.00	.01	-.10	-.06	.10
Verbal Bully Apologize	.27*	.12	.12	.11	.09	.05	.05	.06	.09	.03	.30*
Verbal Monitor	.18	.15	.10	.10	.03	.00	.11	.11	.19	.21	.10
Verbal Discipline - Bully	.30*	.12	.22	.10	.15	.06	.10	.10	.21	.13	.15
Verbal Discipline - Victim	-.18	-.00	-.06	-.01	-.01	.03	-.02	.03	-.17	-.11	.01
Verbal Alt. Activity - Bully	.08	.23	.00	.04	.12	.19	.08	.06	-.01	.02	.20
Verbal Alt. Activity - Victim	.25*	.11	.20	.21	.08	.08	.18	.13	.18	.18	.12
Verbal Advice to Bully	.30*	.21	.12	.09	.01	.08	.12	.03	.05	.07	.24
Verbal Advice to Victim	.20	.45*	.14	.17	.14	.14	.17	.17	.16	.22	.20
Verbal Notify Bully's Parents	.35*	-.01	.49*	.36*	.29*	.22	.25*	.22	.23	.14	.07
Verbal Notify Victim's Parents	.28*	.15	.36*	.39*	.29*	.28*	.27*	.27*	.13	.04	.18
Verbal Bully to Principal	.26*	-.01	.41*	.30*	.40*	.30*	.25*	.22	.25*	.15	.05
Verbal Victim to Principal	.14	.17	.09	.15	.10	.26*	.08	.14	.10	.10	.04
Verbal Bully to Counselor	.22	.11	.22	.20	.22	.22	.41*	.41*	.24	.23	.03
Verbal Victim to Counselor	.32*	.11	.32*	.32*	.25*	.23	.39*	.46*	.25*	.12	.07
Verbal Talk to Bully	.27*	.11	.18	.11	.08	.09	-.01	-.02	.58*	.56*	-.01
Verbal Talk to Victim	.24	.18	.13	.12	.08	.11	.03	.00	.59*	.58*	-.01
Verbal Talk to Both	.28*	.29*	.04	.05	-.02	.11	.03	.01	.17	.16	.43*

Note. \* $p \leq .01$ .



Principal components analysis was used as a final method of determining how the strategies fit together. Two principal components analyses were conducted to assess the underlying structure of the 13 strategies that were included in the analysis. Separate analyses were conducted for the verbal strategies and social strategies. There are three important considerations that must be examined prior to interpreting the components. First, the determinant, which tests for multicollinearity, needs to be greater than .00001. The determinant was .02 for the principal components analysis with the verbal strategies and .01 for the analysis with the social strategies. Second, the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO), which is an indicator of the pattern of correlations of the items, was equal to .80 for the analysis with the verbal strategies and .81 for the analysis of the social strategies. KMO values above .70 are considered to be adequate and indicate the analysis should result in distinct and reliable components (Fields, 2005). Finally, Bartlett's test, which tests if the correlation matrix resembles an identity matrix, was significant for the verbal strategies,  $\chi^2(78) = 760.04, p < .001$ , and the social strategies,  $\chi^2(78) = 940.60, p < .001$ ). The significant results for Bartlett's test indicated that the strategies were correlated highly enough and were appropriate for the principal components analysis (Leech et al., 2005).

Parallel analysis criteria revealed a two-component solution for both the verbal and social strategies. Both analyses were conducted with two components extracted in each analysis and rotated with the direct oblimin method. The two components were interpreted based on the criteria that there was a minimum of three strategies on each

component and that each strategy had a minimum loading equal to or greater than .40 for one component but not for the other component.

Component 1 for the verbal strategies had six strategies that met the criteria of minimum loadings of .40 and Component 2 had seven strategies that met the criteria. The pattern matrix of the verbal strategies is presented in Table 21.

Table 21

*Pattern Matrix for the Strategies Teachers Used to Respond to the Verbal Scenarios*

Strategy	Component 1	Component 2
Refer bully to principal	.821	-.111
Refer victim to counselor	.797	-.013
Refer bully to counselor	.768	-.041
Notify parents of bully	.752	.089
Notify parents of victim	.619	.028
Discuss it with other school staff members	.496	.269
Give advice on how to better handle such situations to bully	-.136	.707
Encourage the bully to include the victim in activities	-.215	.649
Have bully apologize to victim	.156	.633
Discuss it with your class	.097	.540
Find alternative student/activity to provide support for victim	.106	.539
Monitor/watch for future situations	.120	.513
Apply discipline to bully	.357	.459

*Note.*  $N = 200$ .

Both Component 1 and Component 2 for the social strategies had six strategies that met the criteria of minimum loadings of .40. The pattern matrix for the social strategies is presented in Table 22.

Table 22

*Pattern Matrix for the Strategies Teachers Used to Respond to the Social Scenarios*

Strategy	Component 1	Component 2
Refer bully to principal	.852	-.025
Refer victim to counselor	.840	-.138
Refer bully to counselor	.814	-.022
Notify parents of victim	.775	.063
Notify parents of bully	.763	.155
Discuss it with other school staff members	.417	.322
Have bully apologize to victim	-.028	.748
Encourage the bully to include the victim in activities	-.101	.676
Give advice on how to better handle such situations to bully	-.063	.663
Monitor/watch for future situations	-.038	.615
Discuss it with your class	.149	.492
Apply discipline to bully	.263	.459
Find alternative student/activity to provide support for victim	.067	.337

*Note.*  $N = 196$ .

The principal component analysis of the verbal strategies was compared with the analysis of the social strategies to check if the components were composed of the same strategies. All of the strategies on Component 1 were the same and met the criteria of having loadings of .40 or higher only on that component. Component 1 for both the verbal and social strategies was labeled, Referral to Other Adults, because the items on that component reflected strategies in which the teacher referred the student to another adult, including principals, counselors, and parents.

All of the strategies on Component 2 were the same in the analyses for the verbal and social strategies. The strategy, “Find an alternative student or activity to provide support for the victim” did not meet the criteria of having a minimum loading of .40 on that component for the verbal strategies. Component 2 was named Teacher Actions because the strategies involved the teacher performing an action to respond to the situation.

The MANOVAs to test the fourth hypothesis were calculated with the verbal and social strategies that met the criteria of loading on only one factor at .40 or higher. The strategy, “Find an alternative student or activity to provide support for the victim” was omitted because it did not load on Component 2 at .40 or higher in both of the principal components analyses, and because there could not be separate MANOVAs for the verbal and social scenarios due to the repeated measures design.

The first MANOVA was calculated with the six referral to other adults strategies that were common to both the verbal scenarios and the social scenarios. Teachers rated their likelihood of using the referral strategies for one verbal and one social bullying scenario, resulting in 12 ratings for the strategies from each participant. The

12 types of referral to other adults strategies formed the referral to other adults variable. Teacher ratings of their likelihood of using each of the 12 strategies served as the dependent variables.

The second MANOVA was calculated with the six teacher actions strategies that were common to both the verbal scenarios and the social scenarios. Teachers rated their likelihood of using the teacher actions strategies for one verbal and one social bullying scenario, resulting in 12 ratings for the strategies from each participant. The 12 teacher actions strategies formed the teacher actions variable. Teacher ratings of their likelihood of using each of the 12 strategies served as the dependent variables.

*2 x 2 x 12 (Sex of Children x Witness Condition x Referral to Other Adult)*

*MANOVA.* The tests for univariate normality in this study indicated that the data was not normally distributed. Levene's test was significant for likelihood of using 4 of the 12 strategies, which means that the assumption of homogeneity of variance was violated for those strategies. Box's M was significant,  $F(234, 82480.94) = 1.831$ ,  $p < .001$ , which indicates that the covariances were not equal. ANOVA is regarded as being fairly robust to violation of the assumption of homogeneity of variance and covariance when sample sizes are equal (Field, 2005). Sample sizes were equal, so Pillai's statistic is considered to be robust to this violation. Caution was used when interpreting the results of the analysis through the use of a lower alpha level ( $p \leq .01$ ).

The Witness Condition x Referral to Other Adults interaction was significant,  $F(11, 191) = 5.78$ ,  $p < .001$ ,  $\eta_p^2 = .25$ , which indicates that the type of Referral to other adults strategy that teachers used was different depending on whether the bullying was witnessed or not. This interaction signifies a large effect, as it accounted

for 25% of the variance in likelihood of using the referral strategies. Figure 1 displays a graph of the Witness Condition x Referral to Other Adults interaction.

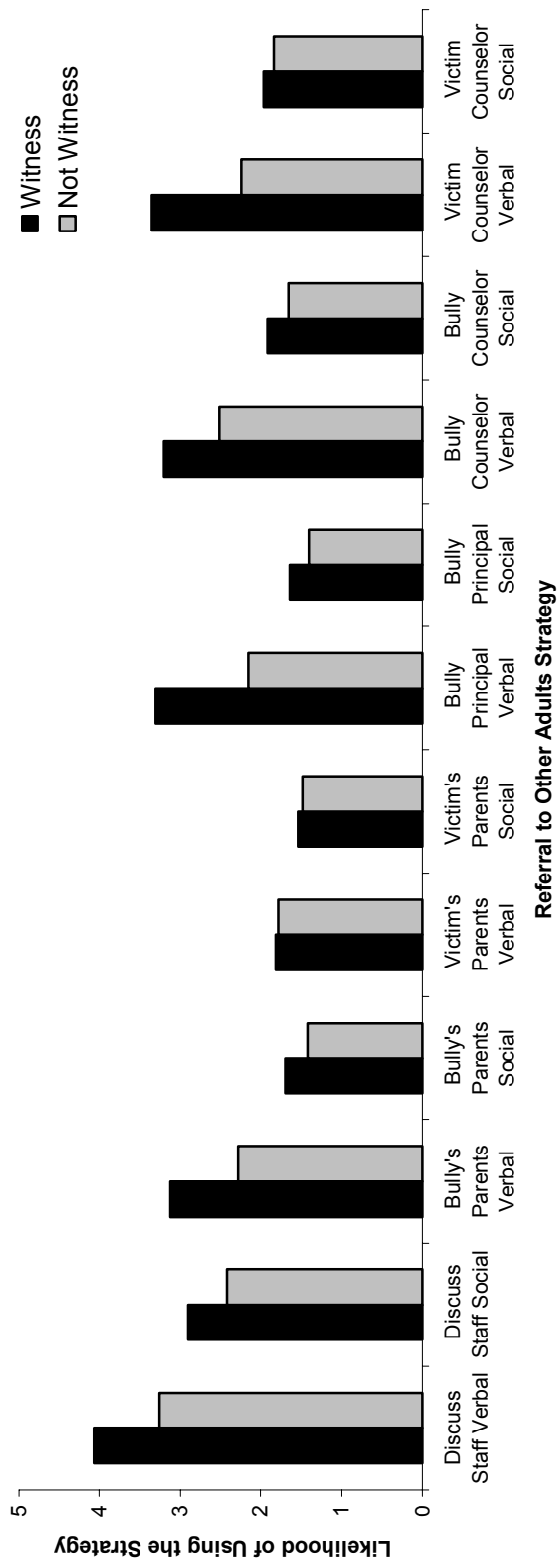


Figure 1. Interaction of Witness Condition x Type of Referral to Other Adults Strategy.

Repeated contrasts were conducted to examine where the differences occurred for this interaction effect. The repeated contrasts for the strategies, “Notify bully’s parents,” “Notify victim’s parents,” “Refer bully to the principal,” and “Refer victim to the counselor” were significant and indicated that teacher likelihood of using these referral strategies was significantly higher for verbal bullying and bullying that was witnessed. The repeated contrasts for the strategies, “Discuss it with other school staff members” and “Refer bully to the counselor” were not significant. The means of the referral to other adults strategies by witness condition are presented in Table 23.



Table 23

*Marginal Means for the Witness Condition x Referral to Other Adults Interaction*

	Verbal		Social	
	Witness	Not Witness	Witness	Not Witness
Discuss it with other staff	4.06	3.26	2.90	2.43
Notify Parents of the Bully	3.22	2.28	1.70	1.43
Notify Parents of the Victim	2.44	1.79	1.54	1.49
Refer Bully to the Principal	3.30	2.15	1.64	1.40
Refer Bully to the Counselor	3.20	2.52	1.92	1.66
Refer Victim to the Counselor	3.35	2.23	1.96	1.84

*Note.* Likelihood of using a strategy was rated 1 (*not at all likely*) to 5 (*very likely*).

There were significant main effects for referral to other adults and witness condition, but these significant main effects are qualified by the interactions of which they are a part. There were no other significant main effects or interactions that were significant at  $p \leq .01$ . The results of the MANOVA are presented in Table 24.

Table 24

*MANOVA for Teacher Likelihood of Using the Referral to Other Adults Strategies to Respond to the Bullying Scenarios*

Source	<i>df</i>	<i>F</i>	$\eta_p^2$	<i>p</i>
Between subjects				
Sex of Children	1	.22	.00	.638
Witness Condition	1	29.84	.13	.000*
Sex x Witness	1	.15	.00	.699
Error	201	(.54)		
Within subjects				
Referral to Other Adults	11	61.92	.78	.000*
Referral x Sex	11	1.91	.10	.040
Referral x Witness	11	5.78	.25	.000*
Referral x Sex x Witness	11	.31	.02	.984
Error	191			

*Note.* Values enclosed in parentheses represent means squares.

*N* = 205.

\**p* ≤ .01.

*2 x 2 x 12 (Sex of the Children x Witness Condition x Teacher Actions)*

*MANOVA*. Levene's test was significant for likelihood of using the strategy, "Give advice to the bully" for both the verbal and social scenarios and for "Apply discipline to the bully" for the social scenarios. This means that the assumption of homogeneity of variance was violated for these strategies. Box's M was not significant,  $F(234, 71346.51) = 1.117, p = .105$ , which indicates that the assumption of homogeneity of covariance was tenable. ANOVA is regarded as being fairly robust to violation of the assumption of homogeneity of variance when sample sizes are equal (Field, 2005). Sample sizes were equal, so Pillai's statistic is considered to be robust to this violation. Still, caution was used when interpreting the results of the analysis through the use of a lower alpha level ( $p \leq .01$ ).

The Witness Condition x Teacher Actions interaction was significant,  $F(11, 182) = 8.57, p < .001, \eta_p^2 = .34$ , which indicates that teacher likelihood of using the strategies to respond to the bullying scenarios depended on the type of bullying and whether or not it was witnessed. This interaction signifies a large effect, as it accounted for 34% of the variance in likelihood of using the referral strategies. Figure 2 displays a graph of the Witness Condition x Teacher Actions interaction.

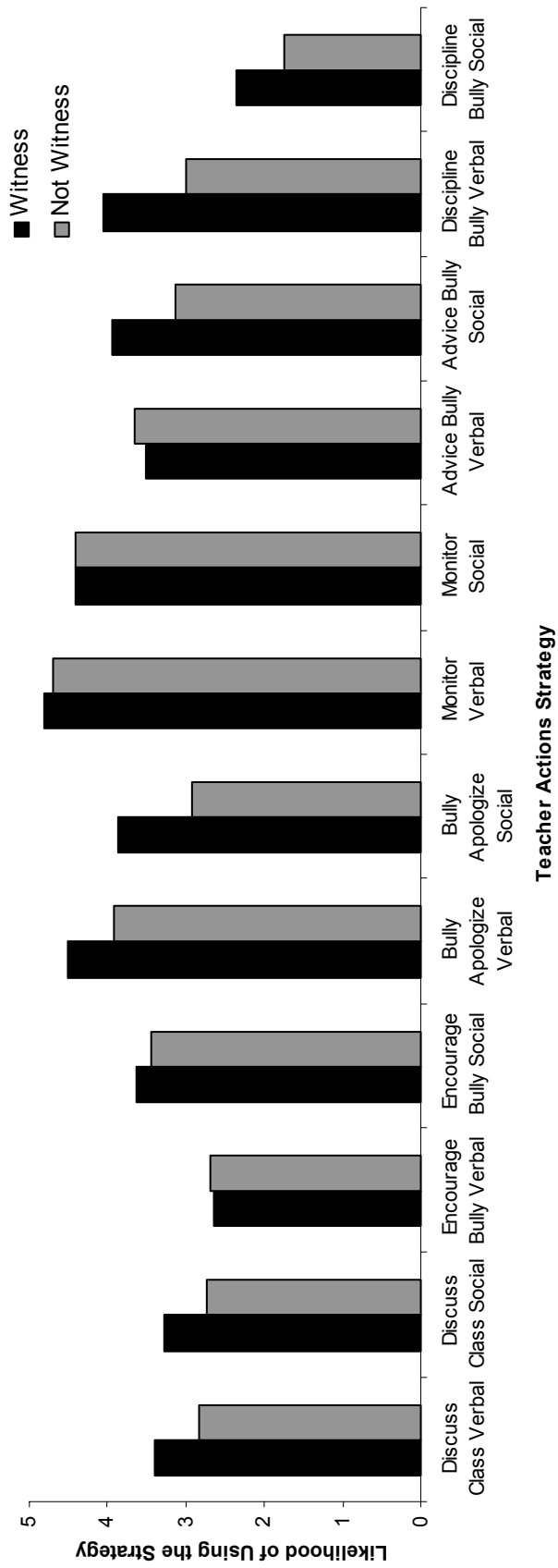


Figure 2. Interaction of Witness Condition x Type of Teacher Actions Strategy.

Repeated contrasts were examined to determine where the differences occurred for the groups. The contrasts comparing verbal strategies with their corresponding social strategies were interpreted to determine differences. The contrast that compared the strategy, “Give advice to bully” was significant,  $F(1, 45) = 13.50$ ,  $p < .001$ , with means indicating that likelihood of using the strategy was highest for the social witnessed scenario, followed by the verbal not witnessed scenario and verbal witnessed scenario, and lowest for the social not witnessed scenario ( $M_{social\ witnessed} = 3.94$ ,  $M_{verbal\ not\ witnessed} = 3.66$ ,  $M_{verbal\ witnessed} = 3.51$ ,  $M_{social\ not\ witnessed} = 3.13$ ).

There were significant main effects for teacher actions and witness condition, but both of the significant main effects are qualified by the interactions. There were no other significant main effects or interactions. The results of the MANOVA are presented in Table 25.

Table 25

*MANOVA for Teacher Likelihood of Using the Teacher Actions Strategies to Respond to the Bullying Scenarios*

Source	<i>df</i>	<i>F</i>	$\eta_p^2$	<i>p</i>
Between subjects				
Sex of Children	1	.36	.00	.549
Witness Condition	1	21.21	.10	.000*
Sex x Witness	1	.64	.00	.424
Error	192	(.43)		
Within subjects				
Teacher Actions	11	119.33	.88	.000*
Teacher x Sex	11	1.34	.08	.207
Teacher x Witness	11	8.57	.34	.000*
Teacher x Sex x Witness	11	1.22	.07	.280
Error	182			

*Note.* Values enclosed in parentheses represent means squares.

*N* = 196.

\**p* ≤ .01.

*Hypothesis 5: Teacher Responses to Bullying Based on Child Sex*

MANOVA was calculated in order to analyze the differences between and within the groups for the multiple dependent variables. A 2 x 2 x 8 (Sex of the Children x Witness Condition x Type of Discipline Strategy) mixed MANOVA was computed to test the hypothesis. Sex of the children involved in the bullying and witness condition were the between group variables. Type of discipline strategy was the repeated variable. Teacher ratings for likelihood of using the disciplinary strategies to respond to the bullying scenarios served as the dependent variables.

*Strategy grouping.* There were two disciplinary strategies that resulted in a consequence to the bully: “Apply discipline to the bully” and “Have bully apologize to the victim.” Two other strategies involved referring the bully to other adults who could impose consequences: “Refer the bully to the principal” and “Notify the bully’s parents.” Teachers rated their likelihood of using these four strategies for one verbal and one social bullying scenario, resulting in eight ratings for disciplinary strategies from each participant. The eight disciplinary strategies formed the type of discipline strategy variable. Teacher ratings of likelihood of using each of the eight strategies served as the dependent variables.

*Results of the 2 x 2 x 8 MANOVA.* Levene’s test was significant for teacher ratings for likelihood of using five of the eight strategies, which means that the assumption of homogeneity of variance was violated for those strategies. Box’s M was significant,  $F(108, 76557) = 1.99, p < .001$ , indicating the assumption of homogeneity of covariance was violated. MANOVA is considered to be robust to violations of the homogeneity of covariance assumption when sample sizes are equal

(Field, 2005). Caution was used when interpreting the results of the analysis through the use of a lower alpha level ( $p \leq .01$ ).

The Sex of Children x Discipline Strategy interaction was significant,  $F(7, 187) = 3.74, p = .001, \eta_p^2 = .12$ . This interaction means that teacher ratings for likelihood of using the strategies to respond to the bullying scenarios depended upon both the type of bullying as well as the sex of the children involved in the bullying. The interaction signifies a medium effect, as it accounted for 12% of the variance in teacher ratings for likelihood of using the discipline strategies to respond to bullying.

Figure 3 displays a graph of the Sex of Children x Discipline Strategy interaction.

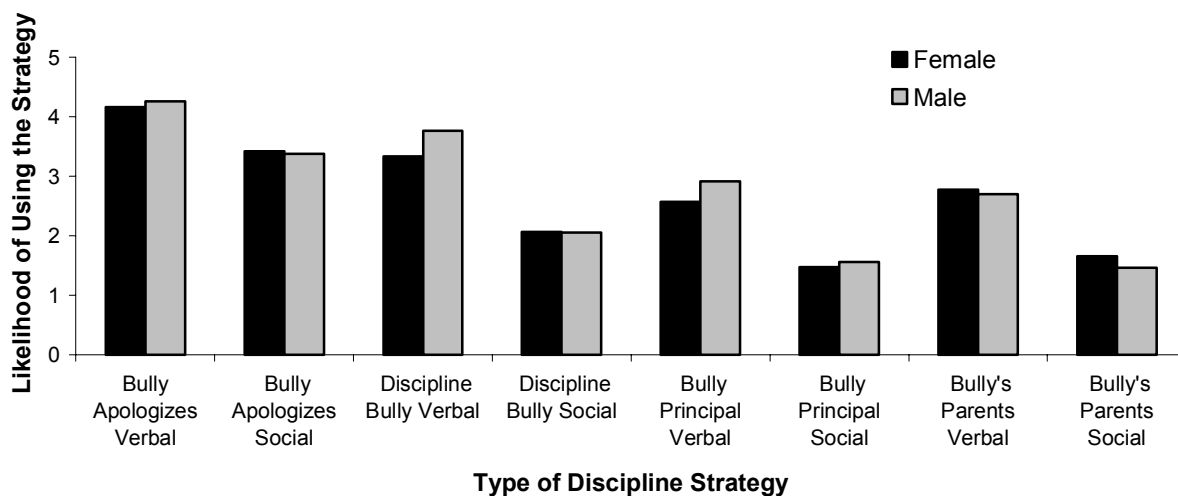


Figure 3. Interaction of Sex of Children x Discipline Strategy.



Repeated contrasts were examined to determine where the differences occurred for the groups. The repeated contrasts compared each strategy against the previous strategy, but only the ones comparing the verbal strategy with its corresponding social strategy were interpreted to determine differences. One contrast was significant. The contrast that compared the strategy “Apply discipline to the bully” was significant,  $F(1, 193) = 5.83, p = .02$ , with means indicating that likelihood of using the strategy was highest for the male verbal scenario, followed by the female verbal scenario and female social scenario, and was lowest for the male social scenario ( $M_{male\ verbal} = 3.77$ ;  $M_{female\ verbal} = 3.33$ ;  $M_{female\ social} = 2.06$ ;  $M_{male\ social} = 2.05$ ).

The Witness Condition x Discipline Strategy interaction was also significant,  $F(7, 187) = 8.21, p < .001, \eta_p^2 = .24$ , indicating that teacher ratings for likelihood of using a strategy to respond to bullying depended on the type of bullying as well as whether or not it is witnessed. The interaction signifies a medium effect, as it accounted for 24% of the variance in teacher ratings for likelihood of using the discipline strategies to respond to bullying. Figure 4 displays a graph of the Witness Condition x Discipline Strategy interaction.

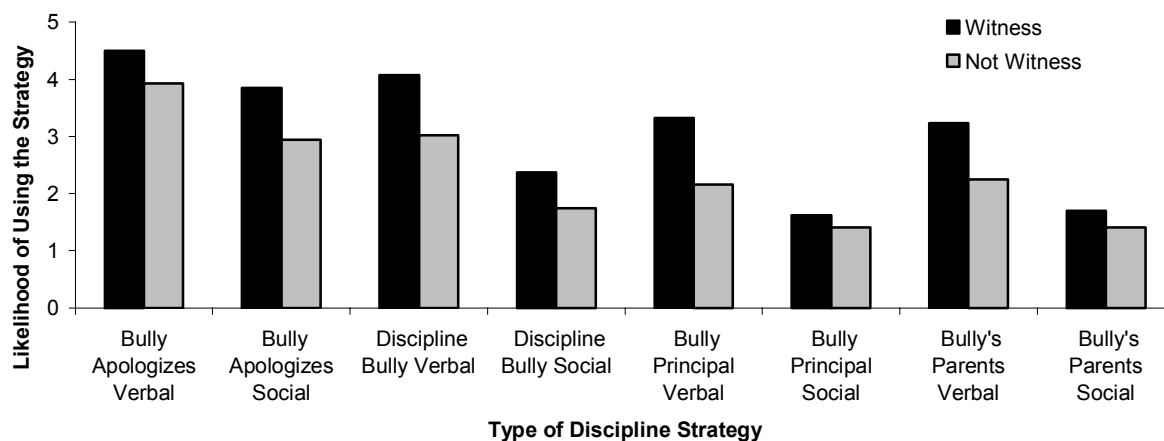


Figure 4. Interaction of Witness Condition x Discipline Strategy.

Repeated contrasts were examined to determine where the differences occurred for the groups. All of the repeated contrasts were significant and indicated that teacher ratings for likelihood of using the discipline strategies was significantly higher for witnessed verbal bullying, followed by not witnessed verbal bullying and witnessed social exclusion. Likelihood of using the discipline strategies was lowest for the not witnessed social exclusion scenarios. The means of teacher ratings for likelihood of using the discipline strategies by witness condition are presented in Table 26.

Table 26

*Marginal Means for the Witness Condition x Discipline Strategy Interaction*

	Verbal		Social	
	Witness	Not Witness	Witness	Not Witness
Have Bully Apologize to Victim	4.50	3.93	3.85	2.95
Apply Discipline to the Bully	4.07	3.03	2.37	1.74
Refer Bully to the Principal	3.32	2.16	1.62	1.41
Notify Parents of the Bully	3.23	2.25	1.70	1.41

*Note.* Likelihood of using a strategy was rated 1 (*not at all likely*) to 5 (*very likely*).

There were significant main effects for witness condition and type of discipline strategy, but they are qualified by the interactions. There were no other significant main effects or interactions. The results of the MANOVA are presented in Table 27.

Table 27

*MANOVA for Teacher Likelihood of Using Discipline Strategies to Respond to the Bullying Scenarios Based on Sex of the Children Involved in the Bullying*

Source	<i>df</i>	<i>F</i>	$\eta_p^2$	<i>p</i>
Between subjects				
Sex of Children	1	.66	.00	.418
Witness Condition	1	53.97	.22	.000*
Sex x Witness	1	.08	.00	.784
Error	193	(.48)		
Within subjects				
Discipline Strategy	7	150.59	.85	.000**
Discipline x Sex	7	3.74	.12	.001*
Discipline x Witness	7	8.21	.24	.000**
Discipline x Sex x Witness	7	.44	.02	.874
Error	187			

*Note.* Values enclosed in parentheses represent means squares.

*N* = 197.

\**p* ≤ .01.

*Hypothesis 6: Relationship of Teacher Responses to Bullying and Teaching Experience*

MANOVA was used in order to analyze the differences between and within the groups for the multiple dependent variables. A 2 x 2 x 3 x 2 (Sex of Children x Witness Condition x Years of Teaching Experience x Type of Bullying) mixed MANOVA was calculated to test the hypothesis. Sex of the children involved in the bullying and witness condition were the between group variables and type of bullying was the repeated variable. Years of teaching experience were empirically split into three categories because if years of teaching experience had been dichotomized, there would have been a disproportionate range of years of experience between the groups. The three groups were: 1 to 12 years ( $n = 67$ ), 13 to 24 years ( $n = 72$ ) and 25 to 37 years ( $n = 65$ ). The total number of strategies teachers used to respond to the verbal and social scenarios served as the dependent variables.

Levene's test was not significant for the number of strategies used in the verbal scenarios,  $F(11, 192) = .67, p = .77$ , or the number of strategies used in the social scenarios,  $F(11, 192) = 1.65, p = .09$ , which means that the assumption of homogeneity of variance was tenable for the number of strategies teachers used to respond to the scenarios. Box's M was not significant,  $F(33, 54417.91) = 1.36, p = .080$ , which indicates that the homogeneity of covariance assumption was tenable. The number of strategies were normally distributed for both the verbal and social scenarios, indicating that univariate normality was assumed. The results of the MANOVA should be considered accurate because the assumptions were not violated.

The Sex of Children x Years of Teaching Experience x Type of Bullying interaction was significant,  $F(2, 192) = 3.51, p = .03, \eta_p^2 = .04$ . This significant interaction indicates that the number of strategies teachers used to respond across the types of bullying scenarios were different for teachers with varying years of teaching experience and for the type of bullying and the sex of the children involved in the bullying. The interaction signifies a small effect, as it accounted for 4% of the variance in the number of strategies that teachers use to respond to the bullying scenarios. Figure 5 displays a graph of the Sex of Children x Years of Teaching Experience x Type of Bullying interaction.

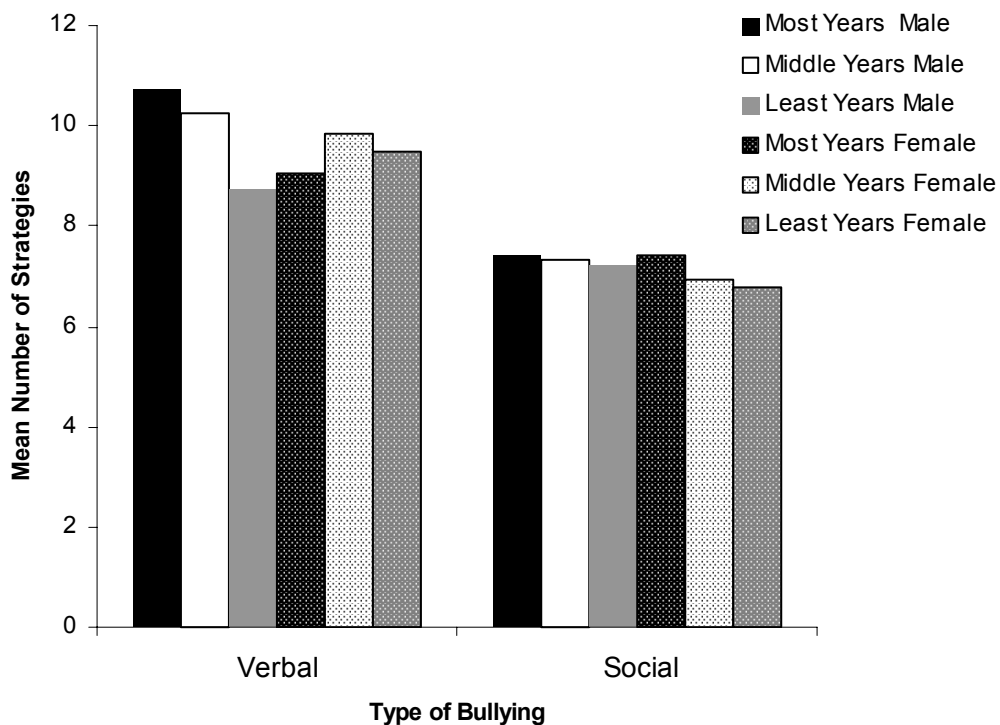
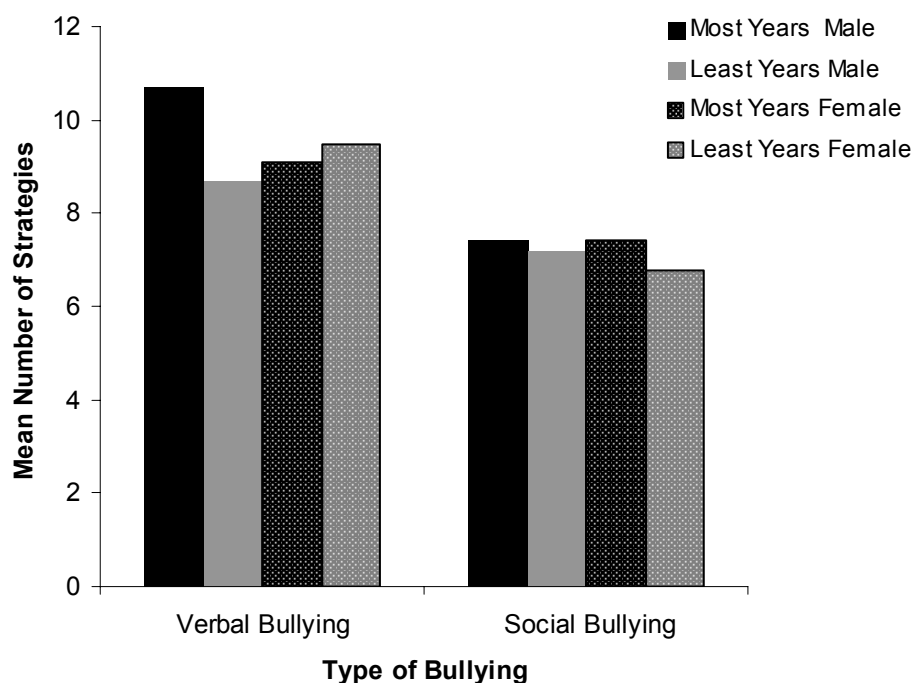


Figure 5. Interaction of Sex of Children x Years of Teaching Experience x Type of Bullying.

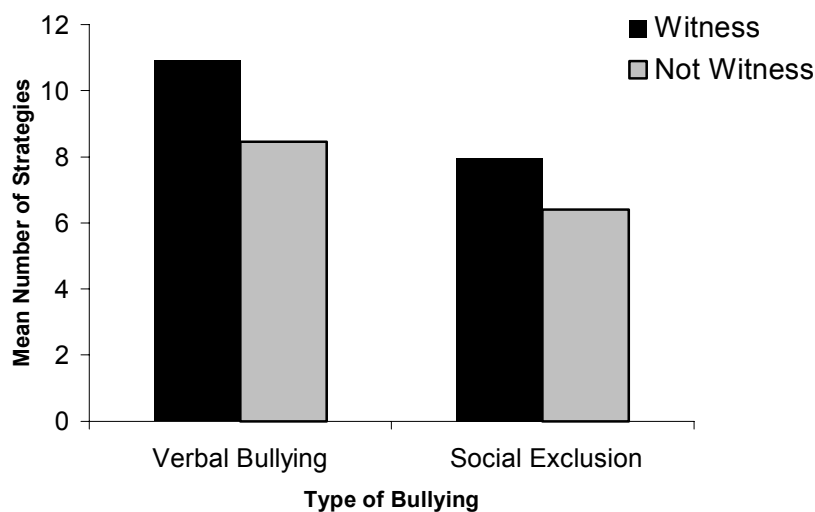
Teachers with the middle amount of years experience (13 to 24 years) always used more strategies to intervene in verbal bullying than social bullying for males and females in both types of bullying. Differences emerged for the number of strategies teachers with the most (25 to 37 years) and least (1 to 12 years) teaching experience used based on the type of bullying and sex of the children involved. Teachers with the least amount of experience used more strategies to intervene in bullying between females than males when the bullying was verbal ( $M_{\text{girls}} = 9.49$ ;  $M_{\text{boys}} = 8.72$ ), whereas teachers with the most experience used more strategies to intervene with males when the bullying was verbal ( $M_{\text{boys}} = 10.73$ ;  $M_{\text{girls}} = 9.07$ ). The opposite pattern emerged when the bullying was social. Teachers with the least years of experience used more strategies to intervene in bullying between males when the bullying was social ( $M_{\text{boys}} = 7.20$ ;  $M_{\text{girls}} = 6.76$ ), whereas teachers with the most experience used more strategies to intervene with females when the bullying was social ( $M_{\text{girls}} = 7.43$ ;  $M_{\text{boys}} = 7.40$ ). Figure 6 displays a graph of the Sex of Children x Years of Teaching Experience x Type of Bullying interaction with the teachers with the middle years of teaching experience removed.



*Figure 6.* Interaction of Sex of Children x Years of Teaching Experience x Type of Bullying for Teachers with the Most and Least Years of Experience.

The two-way interaction, Witness Condition x Type of Bullying, was significant,  $F(1, 192) = .431, p = .04, \eta_p^2 = .02$ , which indicates that the number of strategies teachers used to respond to the scenarios across the type of bullying was different depending on whether or not it was witnessed. The interaction signifies a small effect, as it accounted for only 2% of the variance in the number of strategies that teachers use to respond to the bullying scenarios. Figure 7 displays a graph of the Witness Condition x Type of Bullying interaction.





*Figure 7.* Interaction of Type of Bullying x Witness Condition for the Number of Strategies Teachers Used.

Examination of the marginal means revealed that teachers used the most strategies to respond to the verbal bullying scenarios that were witnessed ( $M = 10.912$ ), followed by the verbal bullying that was not witnessed ( $M = 8.453$ ) and social scenarios that were witnessed ( $M = 7.949$ ). Teachers used the least number of strategies to intervene in the social scenarios that were not witnessed ( $M = 6.403$ ).

The main effects for type of bullying and witness condition were significant, but they are qualified by their involvement in significant interactions. There were no other significant main effects or interactions. The results of the MANOVA are presented in Table 28.

Table 28

*MANOVA for the Number of Strategies Teachers Used to Respond to Bullying*

Source	<i>df</i>	<i>F</i>	$\eta_p^2$	<i>p</i>
Between subjects				
Years of Experience	2	.77	.01	.464
Sex of Children	1	.61	.00	.438
Witness Condition	1	20.66	.10	.000*
Years x Sex	2	.40	.00	.670
Years x Witness	2	.52	.01	.597
Sex x Witness	1	.01	.00	.912
Years x Sex x Witness	2	1.40	.01	.249
Error	192	(19.01)		
Within subjects				
Type	1	130.03	.40	.000*
Type x Years Experience	2	1.11	.01	.333
Type x Sex	1	.13	.00	.718
Type x Witness	1	4.31	.02	.039
Type x Years x Sex	2	3.51	.04	.032
Type x Years x Witness	2	.53	.01	.589
Type x Sex x Witness	1	.02	.00	.901
Type x Years x Sex x Witness	2	.50	.01	.609
Error	192			

*Note.* Values enclosed in parentheses represent means squares.

*N* = 204.

\**p* ≤ .01.

## Chapter 5

### Discussion

This study examined teacher likelihood of intervention in hypothetical bullying scenarios that were varied by the type of bullying, whether or not the bullying was witnessed, and the sex of the children involved. Teacher ratings for likelihood of using various strategies to respond to the bullying scenarios were also examined. There were six hypotheses that were proposed and tested. The first three hypotheses were focused on teacher ratings of likelihood of intervention in the bullying scenarios, while the last three hypotheses were designed to examine teacher ratings of likelihood of using strategies to respond to the bullying scenarios. The main findings of these hypotheses and their relationship to findings from other studies of teacher intervention in bullying are presented. Explanations for the findings are offered. Limitations and implications of the study are discussed and suggestions for future research are proposed.

#### *Main Findings of Teacher Ratings of Likelihood of Intervention and Their Relationship to Findings from Other Studies of Teacher Responses to Bullying*

*Hypothesis 1.* The first hypothesis was that female elementary school teachers are more likely to say they would intervene in witnessed verbal bullying situations than social exclusion bullying and those situations they do not witness. The results provided support for this hypothesis. The average teacher ratings for likelihood of intervention indicated that teachers were *likely* to intervene in witnessed and not witnessed verbal bullying and witnessed social exclusion but *somewhat likely* to intervene in social exclusion that was not witnessed. Teacher ratings of likelihood of

intervention were significantly higher for the verbal bullying scenarios than social exclusion scenarios. Teacher ratings of likelihood of intervention were also significantly higher when bullying was witnessed than when it was not witnessed.

These findings are in line with the other studies that have examined teacher likelihood of intervention in hypothetical bullying scenarios. Teachers in the Craig, Henderson, and Murphy (2000), Yoon and Kerber (2003), and Bauman and Del Rio (2006) studies rated verbal bullying episodes as being more serious and requiring intervention more than the social exclusion scenarios. The prospective teachers in the Craig, Henderson, and Murphy study were also more likely to intervene in bullying episodes that they witnessed. The findings across these various studies are similar despite differences in the samples and the scenarios. Some of the studies (i.e., Yoon, and Yoon and Kerber), as well as the present study were conducted with teachers who teach in elementary schools, whereas others surveyed college students who were majoring in education (i.e., Bauman and Del Rio, and Craig, Henderson, and Murphy). These studies have included samples of participants from the Southwestern, Midwestern, and Northeastern United States, as well as Canada and have yielded similar results.

The scenarios used in these studies of teacher responses to bullying have varied as well. Yoon and Kerber (2003) and Yoon (2004) modified Craig, Henderson, and Murphy's (2000) scenarios for use in their studies, but they did not keep the essential feature of an imbalance in power between the bully and the victim within the scenarios. Bauman and Del Rio's (2005) replication of Yoon and Kerber's study included the same scenarios that were used by Yoon and Kerber. The present study

utilized Craig, Henderson, and Murphy's social and verbal bullying scenarios that were modified by including gender specific names to indicate the sex of the children involved in the bullying scenarios. The findings across these studies have been similar despite differences in the actual content of the scenarios.

*Hypothesis 2.* The second hypothesis was that female elementary school teachers are more likely to say they would intervene in verbal and social exclusion bullying that occurs between boys than verbal and social bullying that occurs between girls. This hypothesis was not supported. Teacher ratings of likelihood of intervention did not differ significantly based on the sex of the children involved in the scenarios.

None of the other published studies that examined teacher likelihood of intervention in hypothetical bullying scenarios assessed for sex differences. These findings do fit with those of Gropper and Froschl's (2000) study that used surveys of teacher attitudes and naturalistic observations to examine adult intervention rates of bullying in classrooms and on the playground. The adults in their study did not think that child sex was an important factor in bullying and the level of involvement of the teachers in the bullying situations did not differ based on the sex of the bullies or victims.

*Hypothesis 3.* The third hypothesis was that years of teaching experience would not be related to female elementary school teacher ratings of likelihood of intervention in the verbal and social exclusion bullying scenarios. There was not a direct relationship between years of teaching experience and teacher ratings of likelihood of intervention. Likelihood of intervention was dependent on the type of bullying as well as whether or not it was witnessed when years of experience were

controlled for. Yoon's (2004) study that found that teaching experience was not predictive of likelihood of intervention in bullying, so the findings from this study are in line with his findings.

*Main Findings of Teacher Ratings of Likelihood of Using the Strategies to Respond to Bullying and Their Relationship to Findings from Other Studies*

The last three hypotheses in this study focused on teacher ratings for likelihood of using various strategies to respond to the bullying scenarios. The average teacher ratings of likelihood of using the strategies to respond to the bullying scenarios indicated that teachers only demonstrated strong likelihood of using three of the 22 strategies to respond to the scenarios. Teachers were *likely* to use one strategy, "Monitor/watch for future situations," for both the verbal and social bullying scenarios. The strategies, "Give advice to the victim" and "Talk to the bully" corresponded to the *likely* rating for only the verbal scenarios. Teachers were *not at all likely* to use four strategies: "Do nothing," "Apply discipline to the victim," "Find an alternate student or activity to provide support for the bully," and "Refer the victim to the principal." Teacher ratings of likelihood of using the remainder of the strategies ranged from *not very likely* to *somewhat likely*.

*Hypothesis 4.* The fourth hypothesis in this study was that female elementary school teachers are likely to say they would use similar types of strategies to intervene in witnessed and not witnessed verbal and social exclusion bullying situations. This hypothesis was not supported, as teacher ratings for likelihood of using the different types of strategies varied depending on the type of bullying and witness condition presented in the scenarios.

Teacher use of the referral to other adults strategies was different depending on the type of bullying and whether the bullying was witnessed or not. Teachers were significantly more likely to refer bullies to the principal, notify parents of bullies and victims, and refer victims to the counselor for verbal bullying and bullying that was witnessed, although teachers' ratings ranged from *somewhat likely* to *not at all likely* for those strategies.

Teacher likelihood of using one of the teacher actions strategies was different based on a combination of the type of bullying and witness condition in the scenarios. Likelihood of using the "Give advice to bully" strategy presented an interesting pattern, as ratings were highest for the social witnessed scenario, followed by the verbal not witnessed scenario and verbal witnessed scenario, and lowest for the social not witnessed scenario. Average ratings of the teacher action strategies ranged from *not very likely* to *likely*, so they were a bit higher than those for the referral to other adults strategies, suggesting that teachers were more willing to intervene directly than to refer students to other school professionals.

Yoon (2004) reported that the teachers in his study indicated they would use a variety of strategies to handle bullying, but he did not provide any further information about the strategies teachers said they would use. The published studies that have examined teacher responses to bullying have surveyed teachers about the strategies that they use and have found that teacher responses generally consist of a variety of strategies, including talking with students involved in bullying, punishing bullies and referring them to other school staff, giving advice to victims, and consulting with parents and other staff members. The teachers in this study used a number of different

strategies to intervene in the bullying situations, which is in line with the general studies of teacher responses to bullying.

*Hypothesis 5.* The fifth hypothesis was that female elementary school teachers are more likely to say they would use disciplinary types of strategies to intervene in verbal and social exclusion bullying situations that involve boys in comparison to verbal bullying and social exclusion situations among girls. There were four disciplinary strategies that teachers could use specifically with the bullies: “Apply discipline to the bully;” “Have bully apologize to the victim;” “Refer the bully to the principal;” and “Notify the bully’s parents.”

The fifth hypothesis was not generally supported. There was a difference in only one of the discipline strategies based on the type of bullying and sex of the children involved in the bullying scenarios. Teacher ratings for likelihood of using the “Apply discipline to bully” strategy depended upon both the type of bullying as well as the sex of the children involved in the bullying. Teacher ratings for likelihood of using the strategy were significantly higher for verbal bullying among boys, followed by verbal bullying between girls and social exclusion among girls, and lowest for the social exclusion scenario that involved boys. It should be noted that the teacher ratings indicated they were *somewhat likely* to use the strategy to intervene in verbal bullying but *not very likely* to use it to intervene in social bullying for both females and males, that is, teachers did not indicate strong likelihood of using the strategy for either type of bullying. The differences in average ratings between girls and boys in the social scenarios were extremely small.



Teacher ratings for likelihood of using the strategies to respond to the bullying were significantly related to sex of the children involved in the bullying scenarios for one of the strategies. Teachers were more likely to apply discipline to male bullies than female bullies when the bullying was verbal in nature. This finding is in line with other studies that have found that boys are punished more frequently and harshly than girls are for the same misbehavior (AAUW, 1998; McFadden et al., 1992).

*Hypothesis 6.* The sixth hypothesis was that teachers with fewer years of teaching experience would be more likely to say they would use more strategies to intervene in verbal and social exclusion bullying than teachers who have more years of teaching experience. The total number of strategies teachers used to respond to the verbal scenarios and the total number of strategies teachers used for the social scenarios were calculated. Teachers were divided into three groups based on their years of teaching experience: least years of experience (1 to 12 years), middle years of experience (13 to 24 years), and most years of experience (25 to 37 years). The sixth hypothesis was not supported because the total number of strategies teachers used was not solely based on their years of teaching experience.

The number of strategies that teachers used to respond to the scenarios was different based on a combination of the type of bullying, the sex of the children involved in the bullying, and years of teaching experience. Teachers with the middle amount of experience used more strategies to intervene in verbal bullying than social bullying and bullying between boys than bullying between girls. Differences emerged for the number of strategies used between teachers with the most versus least years of experience when type of bullying and sex of the children involved in the scenarios

was considered. Teachers with the least amount of experience used more strategies to intervene in bullying between girls when the bullying was verbal, whereas teachers with the most experience used more strategies to intervene with boys when the bullying was verbal. The opposite pattern emerged when the bullying was social. Teachers with the least years of experience used more strategies to intervene in bullying between boys when the bullying was social, whereas teachers with the most experience used more strategies to intervene with girls when the bullying was social.

Yoon (2004) reported that likelihood of intervention was not related to teacher experience and that the teachers in his study used a variety of strategies to respond to bullying scenarios, but he did not provide any further specific information about the strategies teachers said they would use. Published studies of teacher responses to bullying have indicated that teachers use a variety of strategies to handle bullying. These studies have not examined the relationship of types of intervention strategies to different types of bullying, witness condition, and sex of the children involved in the bullying scenarios, so the findings related to this hypothesis cannot be directly compared.

*Summary of main findings.* Average teacher ratings for likelihood of intervention indicated that teachers were *likely* to intervene in both types of bullying. Teacher ratings of likelihood of intervention were higher for verbal bullying and bullying that was witnessed, but teacher ratings were not significantly different based on the sex of the children involved. Teacher likelihood of intervention was dependent on the type of bullying as well as witness condition when years of teaching experience were controlled.

Teachers did not demonstrate strong likelihood of using most response strategies, as the majority of the ratings were *not very likely* or *somewhat likely*. The strategies they did use differed by witness condition and type of bullying. Verbal witnessed bullying led teachers to be more likely to refer the students to other adults, have bullies apologize to victims, and apply disciplinary strategies to the male bullies. Witnessed social exclusion resulted in teachers giving advice to victims. Teachers were somewhat more likely to use response strategies that required them to directly intervene than to refer students to other adults.

The number of strategies teachers used to intervene in the bullying scenarios was not solely based on years of teaching experience as expected, rather intervention depended on a combination of type of bullying, sex of children, and years of experience. The number of strategies used to respond to the scenarios also depended on the type of bullying and witness condition. Teachers used the most strategies for verbal bullying that was witnessed and the fewest strategies for social exclusion that was not witnessed.

#### *Explanation of the Main Findings*

Explanations are offered to account for differences in teacher responses to the scenarios. Perceptions of the teachers related to bullying factors depicted in the scenarios or to scenario specific wording may help explain their responses.

#### *Differences in teacher responses due to teacher perceptions of bullying factors.*

Teachers may have believed that the verbal bullying scenarios were more worthy of intervention due to the explicit nature of the bullying. It is also possible that teachers may have viewed the social exclusion scenarios as a normal part of childhood

interactions that the children need to learn to manage. Numerous statements in the bullying literature suggest that teachers view bullying as a normal part of childhood that is not harmful and serves to make children tougher (e.g., Arora & Thompson, 1987; Banks, 1997; Carney & Merrell, 2001; Colvin et al., 1998; Coy, 2001; Elinoff et al., 2004; Froschl & Sprung, 1999; Goldstein, 2001; Gropper & Froschl, 2000; Hazler et al., 1992; Limber & Small, 2003; Vernberg & Gamm, 2003), which may help to explain why the teachers were less likely to intervene in the social exclusion scenarios.

All of the scenarios indicated negative action, which is a key component of bullying, by having the victims cry. Teachers might not have perceived the social exclusion situations as being hurtful to the victims, despite the fact that the victims were crying. Teachers may have had more empathy toward the victims of the verbal bullying scenarios due to the nature of the bullying. Craig, Henderson, and Murphy (2000) and Yoon (2004) found that empathy was a significant predictor of teacher ratings of likelihood of intervention in the bullying scenarios. The teachers in Yoon's study had less empathy for victims in the social exclusion scenarios and were more likely to discipline bullies for verbal bullying than social exclusion. Teacher empathy toward victims was not assessed in this study, so it is not certain if empathy, the nature of the bullying itself, or other factors accounted for differences in teacher ratings of likelihood of intervention.

Teacher responses to bullying may have been related to their general confidence in dealing with bullying situations. Teachers in various studies have reported that they do not consider themselves to be very confident in handling bullying and do not know

how to effectively respond to it (Boulton, 1997; Harris & Willoughby, 2003; Horne & Socherman, 1996; Nicolaides et al., 2002). Teachers may have been more confident intervening in bullying situations they directly observed than those that they did not witness, helping to explain why their responses were significantly different for the witnessed and not witnessed scenarios. Teachers may be less willing to intervene in a bullying situation they have not witnessed because they may think they do not know enough about the situation to make a decision about intervention methods. Teacher comments on the surveys indicated that they would try to get both sides of the story when deciding how to respond to the scenarios. Teachers wanted to verify what happened to make sure the situations actually occurred. It is possible that the teachers viewed the victims as tattling on their peers. Authors of bullying review articles have proposed that student reports of bullying may be viewed as tattling, so teachers may not intervene in bullying in an effort to discourage tattling behavior (e.g., Cooper & Snell, 2003; Froschl & Sprung, 1999; Gropper & Froschl, 2000).

*Differences in teacher responses due to the content of the scenarios for bullying factors.* Differences in teacher responses might have been related to teacher perceptions of scenario specific wording for the primary bullying factors. One possible explanation that may account for the differences in teacher responses to the scenarios may be related to the way the key elements of bullying were defined in the scenarios. Imbalance of power, which is a key defining component of bullying, was indicated in the scenarios by having an older student attack a younger student. Teacher ratings may have been related to the specific terminology that was used to indicate the imbalance in power (i.e., “older” and “younger”) throughout the

scenarios. It may be that some of the teachers thought that younger children did not need to play in games that involved older children due to differences in skill levels or potential safety issues. The teachers may not have regarded the social scenarios as incidents of bullying, which may explain why they intervened less in those scenarios than the verbal scenarios. Teachers may have intervened more when older students called younger students derogatory names because they may have considered the situations to be bullying.

Repetition over time, which is another key defining element of bullying, was indicated in the scenarios by implying that the victim had experienced the same negative action several times. The way the repeated abuse was indicated in the verbal and social bullying scenario may have been a factor in the way teachers responded to the two types of bullying. Repeated abuse seems to be more explicitly stated in the verbal scenarios than in the social scenarios. The verbal witnessed scenario stated, “A teacher has forewarned you that the student has been a target for name-calling lately.” The verbal not witnessed scenario included the statement, “The student has been complaining about the other student quite a bit lately.” Both of the verbal scenarios clearly express that the victim has repeatedly experienced similar problems. Repeated abuse in the social witnessed scenario is implied when the bully says to the victim, “No, absolutely not, I already told you, you can’t play with us...” and in the social witness scenario the victim tells the teacher, “I keep asking to play with those big kids over there but they won’t let me.” It is possible that teachers might have thought that the social exclusion situations were incidents that happened during that particular

recess time and were not repeated problems, whereas the information in the verbal scenarios may have suggested that they have been recurring problems for the victims.

Teacher responses to the bullying scenarios were not significantly related to the sex of the children involved in the scenarios. The verbal and social scenarios were exactly the same, with the exception of the sex of the children involved in the scenarios. Sex of the children was indicated by gender specific names. It is possible that likelihood of intervention was not related to the sex of the children involved in the bullying because the other components of the scenarios, type of bullying and witness condition, may have been assigned greater importance.

*Differences in teacher responses due to the content of the scenarios based on instrument related factors.* Differences in teacher responses to the scenarios may be related to issues of the language that was used by the bullies in the scenarios. Both of the verbal scenarios involved a bully calling a victim names through the use of derogatory statements. The victim was referred to as “fat” and “ugly” in the verbal witnessed scenario and “stupid” and “retarded” in the verbal not witnessed scenario. The social scenarios did not involve derogatory statements and depicted general situations in which the victims were told that they could not play with the bullies because they were not good at the games the bullies were playing. Teachers may have reacted more to the derogatory language in the scenarios than the type of bullying that was presented. Schools may have explicit policies regarding name-calling, as well as the types of language that is forbidden, but policies may not address social bullying (Bauman & Del Rio, 2006). School policies related to verbal attacks on other students in the schools in which the teachers worked may have been a factor for the teachers in

this study, helping to explain why verbal bullying was rated higher than social bullying.

Teacher perceptions related to scenario specific wording rather than the full intended content could be related to differences in responses. Teachers may have viewed the verbal bullying scenarios as more harmful to the victims because explicit name-calling was depicted. The social exclusion scenarios may have been viewed as less harmful because they portrayed more ambiguous situations in which a child was not allowed to play with other children. Teachers may have been more confident in responding to the verbal bullying scenarios because the name-calling was clear whereas the social situations were more ambiguous and perhaps could have been interpreted in different ways.

### *Implications*

*Teachers recognize bullying as a problem.* Bullying situations such as those depicted in the scenarios are likely to occur in any school. Teachers in this study recognized that the situations were potentially problematic, as their average ratings corresponded to likely to intervene, which would suggest that they recognized the situations as being socially unacceptable and harmful. Teachers in various studies have rated boys as being more generally aggressive than girls (Crick et al., 1997; Hudley, 1993; Hudley et al., 2001; Rys & Bear, 1997), but teacher responses in this study were not different based on the sex of the children involved in the bullying scenarios. This suggests that teachers regarded the situations as being unacceptable and harmful for both boys and girls.



*Lack of teacher action following bullying may foster additional bullying.* Teachers indicated they would be likely to intervene in the scenarios, yet when they were asked to rate their likelihood of using strategies to respond to the scenarios, their responses suggested they did not follow through with their likelihood of intervention. The average teacher ratings of likelihood of using nearly all of the strategies corresponded to *somewhat likely* to *not at all likely* with “Monitor and watch for future situations” being most frequently chosen. Teachers said they would intervene, but when it came to actually intervening their responses were not so definitive. This seems to be consistent with research findings that teachers intervene in bullying infrequently or inconsistently (Bentley & Li, 1995; Craig, Henderson, & Murphy, 2000; Jaeger, 2002) and student reports that teachers frequently do not attempt to address bullying (Bentley & Li, 1995; Boulton & Underwood, 1992; Charach et al., 1995; Crothers & Kolbert, 2004; Olweus, 1991; Whitney & Smith, 1993; Zeigler & Rosenstein-Manner, 1991).

The finding that teachers did not follow through in their responses to the scenarios could be problematic if they behave similarly in real-life situations. Most bullying occurs at school, so teachers are typically responsible for handling bullying problems. Teachers need to understand that their responses to victims and bullying situations are very important, and that by not actively addressing bullying they may convey the message that they are condoning bullying and do not view it as a serious problem (Cooper & Snell, 2003; Froschl & Sprung, 1999; Gropper & Froschl, 2000; Madsen, 1996). On the other hand, appropriately responding to bullying sends a powerful message that bullying is not acceptable, which may deter children from future

bullying (Harris & Willoughby, 2003; Yoon & Kerber, 2003). If these scenarios had been real situations and the teachers responded to them in the manner in which they stated here, they might have sent the message that they did not consider the situations to be serious and that such behavior is acceptable.

Bullies may believe their behavior is acceptable when teachers do not intervene in bullying (Craig, Pepler, & Atlas, 2000; Crothers & Kolbert, 2004; Garbarino & deLara, 2003; Yoon, 2004) which may reinforce their behavior. Teachers were less likely to intervene in bullying that was not witnessed, which could lead bullies to engage in more covert methods of bullying to avoid detection. The bullies in the scenarios were typically not subjected to consequences due to their actions, particularly for social exclusion and when the bullying was not witnessed, so they would be likely to continue their behaviors and potentially escalate into more severe types of abuse (Goldstein, 2001). Since bullying is repetitive low-level abuse that may be an underlying factor of and antecedent to further school violence (Bulach et al., 2003; Carney et al., 2002; Goldstein, 2001; Harris, 2004; Hazler & Carney, 2000; Hazler et al., 2001; Spivak & Prothrow-Stith, 2001), teachers lack of effective intervention would be expected to contribute to further bullying as well as possibly more serious violence over time.

*Ignoring reported bullying might increase covert behaviors and reduce reporting.*

The finding that teachers were more likely to respond to the witnessed bullying scenarios, even when they were informed of bullying situations that they did not witness, has important implications for victims as well. Victims told teachers about the bullying, but teachers were less likely to intervene when they were told about

bullying than when they actually observed it. Victims may believe that teachers do not consider the situations to be important when teachers do not respond to their reports of bullying problems, and may be less likely to turn to them for help in future situations. Research indicates that victims are more likely to tell a friend or parent than a teacher about being bullied (Bentley & Li, 1995; Borg, 1998; Goldstein, 2001; Harris, 2004; Harris et al., 2002; Hoover et al., 1992; Smith & Shu, 2000; Unnever & Cornell, 2004; Zeigler & Rosenstein-Manner, 1991), so is important for teachers to take student reports of bullying seriously. More covert behaviors by bullies coupled with reluctance of victims to report bullying to teachers may result in numerous bullying situations being unchallenged.

*Ignoring bullying might directly affect bullies and victims.* Lack of teacher intervention in bullying would likely contribute to detrimental effects to both victims and bullies. Bullies have been found to have difficulties with academics and interpersonal relationships and they exhibit more externalizing behavior problems and general misconduct, including experimentation with alcohol and other controlled substances (Berthold & Hoover, 2000; Bosworth et al., 1999; Kaltiala-Heino et al., 2000; Kumpulainen et al., 1998; Nansel et al., 2001; Wolke et al., 2000). The causal direction of the relationship between bullying and behavioral difficulties is unknown, however, teachers who do not effectively respond to bullies are certainly not helping them to change their aggressive behaviors.

Victims of bullying have reported feeling angry, sad, worried, and helpless, as well as being afraid at school (Berthold & Hoover, 2000; Borg, 1998; Harris et al., 2002; Sharp, 1995). Teachers who do not respond to bullying situations, particularly

when victims report bullying to them, are not supporting victims and helping them cope with their feelings. Chronic victimization has been associated with school related problems, including avoidance of school and poorer academic functioning (Harris, 2004; Hazler et al., 1992; Hoover et al., 1992; Hoover et al., 1993; Juvonen, Nishina, & Graham, 2000; Kochenderfer & Ladd, 1996; Nesdale & Pickering, 2005; Schwartz et al., 2005). Along with problems at school, persistent victimization has been strongly associated with depression, anxiety, and loneliness (Baldry, 2004; Craig, 1998; Hanish & Guerra, 2002; Hawker & Boulton, 2000; Kaltiala-Heino et al., 2000; Nansel et al., 2001) as well as suicidal ideation (Carney, 2000; Rigby & Slee, 1999; Slee, 1995). Effective teacher response to bullying could help victims to get the assistance they need, but allowing victims to continue to be targets of bullying could result in further harm to the victims.

*Value in teacher training on identifying and responding to bullying.* Teachers need training to identify and effectively respond to bullying. Education and training of teachers and all other adults who work in the schools should begin with providing clear definitions of bullying that includes all of the key elements of bullying. The different types of bullying should be thoroughly examined so that teachers can learn to recognize them. Once teachers have a comprehensive understanding of the nature of bullying, education of teachers should proceed to preventing and intervening in bullying. Studies of school based bullying prevention and intervention programs have been found to be effective in reducing the prevalence of bullying, although success rates do vary (Elinoff et al., 2004; Olweus, 1993; Smith, 2004). An important factor in the success of systematic efforts to address bullying is the ability of schools to

implement programs effectively (Smith, 2004). Teacher training seems to be critical for successful anti-bullying programs because teachers have a key role in implementing the programs (Craig, Henderson, & Murphy, 2000).

### *Limitations*

The results of this study need to be considered against its limitations. The limitations of this study are related to the sample and measurement methods that were used to conduct the study. There are also limitations based on the data that was obtained from the teachers in this study.

*Limitations related to the sample.* There are limitations of the results of this study based on the sample that was used. This study included only female elementary school teachers from one geographic region of the United States. There was no diversity of racial or ethnic backgrounds of the participants, as all of the teachers were Caucasian. The results of this study may not generalize to male teachers, teachers who teach at the secondary level, or to teachers of other races or ethnicities. Additionally, this study may not generalize to teachers who work in different regions of the United States.

All of the participants volunteered to complete the surveys. The teachers who participated in the study may have been particularly interested in or held different attitudes toward the bullying situations than those teachers who chose not to complete the survey.

*Limitations related to measurement methods.* An important limitation of this study is associated with the use of hypothetical bullying scenarios. Scenarios may provide realistic examples of student behavior, but responses to hypothetical scenarios may be quite different from teacher responses to actual bullying situations. The teacher responses to the hypothetical scenarios were not compared to their actual responses to real-life bullying situations so comparisons could not be made.

Other limitations due to measurement issues are related to the scenarios. The first issue regarding the scenarios is that the social scenarios depicted a victim not being allowed to play a game with the bully. This is a more subtle social bullying action compared to a victim being explicitly ostracized from a peer group. The verbal scenarios, on the other hand, depicted explicit and derogatory name-calling versus general situations in which a child is made fun of. The two types of bullying depicted in the scenarios appear to be at opposite ends of severity, which could have affected teacher responses to them.

The second measurement issue related to the scenarios is that the witnessed and not witnessed versions of the two types of bullying were completely different bullying scenarios. Witness condition was experimentally manipulated in the scenarios but it must be acknowledged the content of the witnessed and not witnessed scenarios were also different. Inferring causation due to witness condition is limited because of the different content of the scenarios.

Further limitations associated with measurement methods concern the strategies that teachers could use to respond to the bullying scenarios. First, teachers were told to rate their likelihood of using the strategies, even though they might have indicated

that they were *not at all likely* to intervene, which could explain why teachers were not so definitive in their use of the strategies to respond to the scenarios. A better approach might have been to instruct teachers to rate the strategies only if they chose to intervene. Second, attempts were made to include a full range of intervention strategies. It is possible that the list of strategies was not exhaustive. Teachers were given the option of describing any other strategies they would use to respond to the scenarios, though they did not indicate that they would use any other strategies that were not included.

*Limitations related to the data and statistical analyses.* Assumptions of normality and homogeneity of variance and covariance were violated for many of the tests of the hypotheses. Violations of the assumptions may have resulted in lowering the ability of the tests to detect true differences in the scenarios. Additionally, there may not have had enough participants for the analyses with the strategies, which would result in a reduction in power as well.

*Suggestions for Future Research*

It was previously noted that the witnessed and not witnessed scenarios differed in their content. This limitation could lead to a future study to clarify the effect of witness condition in teacher responses to bullying scenarios. Witness condition could be truly experimentally manipulated in the scenarios. The bullying scenarios should be exactly the same with only the indicators of the witness condition being different in the scenarios. Witness condition could then be a between subjects variable to examine the differences in teacher responses based on witness condition.

Another future study would be to determine if terminology in the scenarios that is used to indicate key components of bullying affects teacher responses. The terminology that was used to indicate an imbalance in power in the scenarios (i.e., older and younger) may have accounted for differences in teachers' responses to the various scenarios. The terminology could be manipulated in the scenarios to determine if specific descriptors have effects on teacher responses to the scenarios. Other terms to indicate an imbalance in power may include stronger versus weaker or bigger versus smaller.

The result of this study did not provide support for the hypothesis that there would be differences in teacher responses to bullying based on the sex of the students involved in the bullying. The bullying scenarios involved same-sex pairs of students. A study could be designed to see if there would be differences in teacher responses to bullying for opposite-sex pairs of children. It would be particularly interesting to see if there were differences in teacher responses when girls are aggressive toward boys, because teachers tend to view boys as being more aggressive than girls.



Female elementary school teachers were presented with hypothetical scenarios that were varied by the type of bullying, whether or not it was witnessed, and the sex of the children involved in the bullying. Teachers indicated their likelihood of intervention and use of various strategies to respond to the scenarios. Likelihood of intervention ratings were higher for verbal bullying and bullying that was witnessed, but were not significantly different based on the sex of the children involved.

Teachers did not demonstrate strong likelihood of using most response strategies, although the strategies they did use differed by witness condition and type of bullying. If teachers respond to actual bullying situations in a similar manner as the teachers in this study reported they would, they are likely to reinforce bullies for their behavior and contribute to further bullying in their schools.

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**Appendix A****Bullying Attitudes Questionnaire (BAQ)****Prospective Teachers' Attitude Study**

## Part I

Note: Please do **not** put your name on this booklet.

Sex \_\_\_\_\_ Age \_\_\_\_\_

Do you have experience teaching children? This includes positions such as camp counsellor, or teaching assistant. Yes \_\_\_\_\_ No \_\_\_\_\_

If you answered yes to the above question, for what length of time have you taught?

0-1 month \_\_\_\_\_ 2-3 yrs \_\_\_\_\_ 15+ yrs \_\_\_\_\_  
1-3 months \_\_\_\_\_ 3-6 yrs \_\_\_\_\_  
3-6 months \_\_\_\_\_ 6-8 yrs \_\_\_\_\_  
6-12 months \_\_\_\_\_ 8-10 yrs \_\_\_\_\_  
1-2 years \_\_\_\_\_ 10-15 yrs \_\_\_\_\_

Do you have any children? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, how many? \_\_\_\_\_

## Part II - Instructions

For the next section of the questionnaire, imagine you are a teacher supervising a playground during recess. Please read the short description and answer the three questions which follow.

### Here is an example question:

**You witness two children, one is in a grade above the other. The older student spits on the younger and then laughs. The younger child runs away to the other end of the schoolyard, and spends the rest of the recess alone. You have heard from other teachers that this child is frequently teased by peers.**

1. How seriously do you rate this conflict?

- 5 Very serious
- 4 Serious
- 3 Moderately serious
- 2 Not very serious
- 1 Not at all serious

2. How likely are you to intervene in this situation?

- 5 Very likely
- 4 Likely
- 3 Somewhat likely
- 2 Not very likely
- 1 Not at all likely

3. Would you call this bullying?

- 1 Yes
- 2 No

In the example given, if you judged the scenario to be moderately serious, and you decide you are not very likely to intervene, you would circle 3 and 2 respectively. If you thought that this conflict did not constitute bullying, you would circle 2 for no. There is no right or wrong answer - it is entirely your own opinion.

Please **circle** the **number** which corresponds best with your opinion for each of the following scenarios.

**You are approached by a child who claims they have been kicked by an older student without provocation. You did not witness the event, although bruising is evident. The older child has bothered the younger child before.**

1. How seriously do you rate this conflict?

- 5 Very serious
- 4 Serious
- 3 Moderately serious
- 2 Not very serious
- 1 Not at all serious

2. How likely are you to intervene in this situation?

- 5 Very likely
- 4 Likely
- 3 Somewhat likely
- 2 Not very likely
- 1 Not at all likely

3. Would you call this bullying?

- 1 Yes
- 2 No

**A child comes over to you, crying, saying they were called "stupid" and "retarded" by an older child. The younger student has been complaining about the older student quite a bit lately. You did not witness the event.**

1. How seriously do you rate this conflict?

- 5 Very serious
- 4 Serious
- 3 Moderately serious
- 2 Not very serious
- 1 Not at all serious

2. How likely are you to intervene in this situation?

- 5 Very likely
- 4 Likely
- 3 Somewhat likely
- 2 Not very likely
- 1 Not at all likely

3. Would you call this bullying?

- 1 Yes
- 2 No

**You witness an older child who says to a younger child, "No, absolutely not, I already told you, you can't play with us, you're no good at this game". The child who wanted to play walks away with tears in their eyes.**

1. How seriously do you rate this conflict?

- 5 Very serious
- 4 Serious
- 3 Moderately serious
- 2 Not very serious
- 1 Not at all serious

2. How likely are you to intervene in this situation?

- 5 Very likely
- 4 Likely
- 3 Somewhat likely
- 2 Not very likely
- 1 Not at all likely

3. Would you call this bullying?

- 1 Yes
- 2 No

**You notice a grade eight student standing alone, around the corner of a building. When you inquire, she hands you a note which reads "ovens are hot, freezers are cold, why wear a bra when there's nothing to hold?". This is the third time this type of incident has happened with this child this week.**

1. How seriously do you rate this conflict?

- 5 Very serious
- 4 Serious
- 3 Moderately serious
- 2 Not very serious
- 1 Not at all serious

2. How likely are you to intervene in this situation?

- 5 Very likely
- 4 Likely
- 3 Somewhat likely
- 2 Not very likely
- 1 Not at all likely

3. Would you call this bullying?

- 1 Yes
- 2 No

**A student, who is crying, says to you: "I keep asking to play with those big kids over there but they won't let me - they say I'm no good." You did not witness the event.**

1. How seriously do you rate this conflict?

- 5 Very serious
- 4 Serious
- 3 Moderately serious
- 2 Not very serious
- 1 Not at all serious

2. How likely are you to intervene in this situation?

- 5 Very likely
- 4 Likely
- 3 Somewhat likely
- 2 Not very likely
- 1 Not at all likely

3. Would you call this bullying?

- 1 Yes
- 2 No

**A child comes to you and says, "a big kid hit me, and I did nothing to deserve it - I always get picked-on." You did not witness the event, but the child has been crying.**

1. How seriously do you rate this conflict?

- 5 Very serious
- 4 Serious
- 3 Moderately serious
- 2 Not very serious
- 1 Not at all serious

2. How likely are you to intervene in this situation?

- 5 Very likely
- 4 Likely
- 3 Somewhat likely
- 2 Not very likely
- 1 Not at all likely

3. Would you call this bullying?

- 1 Yes
- 2 No



**You witness a bigger child push a smaller child with enough force that the smaller child falls to the ground. The push was clearly intentional. The child who was pushed yells "leave me alone - your always pushing me around."**

1. How seriously do you rate this conflict?

- 5 Very serious
- 4 Serious
- 3 Moderately serious
- 2 Not very serious
- 1 Not at all serious

2. How likely are you to intervene in this situation?

- 5 Very likely
- 4 Likely
- 3 Somewhat likely
- 2 Not very likely
- 1 Not at all likely

3. Would you call this bullying?

- 1 Yes
- 2 No

**You witness a student who says to a younger student, "You'll make us lose, we don't want you on our team, why do you keep asking when we keep telling you no?" The rejected child walks away, tears in their eyes.**

1. How seriously do you rate this conflict?

- 5 Very serious
- 4 Serious
- 3 Moderately serious
- 2 Not very serious
- 1 Not at all serious

2. How likely are you to intervene in this situation?

- 5 Very likely
- 4 Likely
- 3 Somewhat likely
- 2 Not very likely
- 1 Not at all likely

3. Would you call this bullying?

- 1 Yes
- 2 No

**You are approached by a child who claims they have been pinched "hard" by an older student for the third time today, without reason. You did not witness the event, although, pinch marks are visible.**

1. How seriously do you rate this conflict?

- 5 Very serious
- 4 Serious
- 3 Moderately serious
- 2 Not very serious
- 1 Not at all serious

2. How likely are you to intervene in this situation?

- 5 Very likely
- 4 Likely
- 3 Somewhat likely
- 2 Not very likely
- 1 Not at all likely

3. Would you call this bullying?

- 1 Yes
- 2 No

**You witness an older student chant to their younger playmate: "Teachers pet, browner, keener, suck-up, kiss-ass ". The so-called "keener" tries to ignore the remarks but sulks in a corner. You saw the same thing happen the other day.**

1. How seriously do you rate this conflict?

- 5 Very serious
- 4 Serious
- 3 Moderately serious
- 2 Not very serious
- 1 Not at all serious

2. How likely are you to intervene in this situation?

- 5 Very likely
- 4 Likely
- 3 Somewhat likely
- 2 Not very likely
- 1 Not at all likely

3. Would you call this bullying?

- 1 Yes
- 2 No

**You witness an older student say to a younger student: "Hey, give me your lunch money or I won't be your friend". The younger child complies with the request at once. According to a colleague, this is not the first time this has happened.**

1. How seriously do you rate this conflict?

- 5 Very serious
- 4 Serious
- 3 Moderately serious
- 2 Not very serious
- 1 Not at all serious

2. How likely are you to intervene in this situation?

- 5 Very likely
- 4 Likely
- 3 Somewhat likely
- 2 Not very likely
- 1 Not at all likely

3. Would you call this bullying?

- 1 Yes
- 2 No

**A child, crying, comes over to you, and says: "A big kid keeps making fun of me!". You did not witness the event. This is the third time it has happened this week.**

1. How seriously do you rate this conflict?

- 5 Very serious
- 4 Serious
- 3 Moderately serious
- 2 Not very serious
- 1 Not at all serious

2. How likely are you to intervene in this situation?

- 5 Very likely
- 4 Likely
- 3 Somewhat likely
- 2 Not very likely
- 1 Not at all likely

3. Would you call this bullying?

- 1 Yes
- 2 No

**You witness a child who says to another: "Only the big kids get to play on this part of the playground - we've been telling you all week - when are you gonna learn?". You know that there is no such rule. The rejected child walks away with watery eyes.**

1. How seriously do you rate this conflict?

- 5 Very serious
- 4 Serious
- 3 Moderately serious
- 2 Not very serious
- 1 Not at all serious

2. How likely are you to intervene in this situation?

- 5 Very likely
- 4 Likely
- 3 Somewhat likely
- 2 Not very likely
- 1 Not at all likely

3. Would you call this bullying?

- 1 Yes
- 2 No

**You witness an older child scratch a younger child's face with their fingernails. Red marks are apparent on the face of the scratched child. The older child was brought to the principal's office a week earlier for a similar conflict.**

1. How seriously do you rate this conflict?

- 5 Very serious
- 4 Serious
- 3 Moderately serious
- 2 Not very serious
- 1 Not at all serious

2. How likely are you to intervene in this situation?

- 5 Very likely
- 4 Likely
- 3 Somewhat likely
- 2 Not very likely
- 1 Not at all likely

3. Would you call this bullying?

- 1 Yes
- 2 No

**A student, who appears to have been crying, says to you, "One of the older kids won't leave me alone, they keep calling me names - they did it yesterday, and the day before that, and the day before that." You did not witness the event.**

1. How seriously do you rate this conflict?

- 5 Very serious
- 4 Serious
- 3 Moderately serious
- 2 Not very serious
- 1 Not at all serious

2. How likely are you to intervene in this situation?

- 5 Very likely
- 4 Likely
- 3 Somewhat likely
- 2 Not very likely
- 1 Not at all likely

3. Would you call this bullying?

- 1 Yes
- 2 No

**You witness an older student saying, "Hey fat kid...hey fat kid...hey ugly...come here." Tears stream down the so-called "fat kid's" face. A teacher forwarned you that the "fat kid" has been a target for name-calling lately.**

1. How seriously do you rate this conflict?

- 5 Very serious
- 4 Serious
- 3 Moderately serious
- 2 Not very serious
- 1 Not at all serious

2. How likely are you to intervene in this situation?

- 5 Very likely
- 4 Likely
- 3 Somewhat likely
- 2 Not very likely
- 1 Not at all likely

3. Would you call this bullying?

- 1 Yes
- 2 No

**A student comes to you and complains they were not allowed to play baseball for the third time this week because they are too young. This child's face looks as though they have been crying. You did not witness the event.**

1. How seriously do you rate this conflict?

- 5 Very serious
- 4 Serious
- 3 Moderately serious
- 2 Not very serious
- 1 Not at all serious

2. How likely are you to intervene in this situation?

- 5 Very likely
- 4 Likely
- 3 Somewhat likely
- 2 Not very likely
- 1 Not at all likely

3. Would you call this bullying?

- 1 Yes
- 2 No

**A student, who is crying, says to you: "the big kids won't let me get my ball because it's on their side". You know there is no such thing as a side of the playground for "big kids". As of late, on a few occasions, this student has raised the same complaint. You did not witness the event.**

1. How seriously do you rate this conflict?

- 5 Very serious
- 4 Serious
- 3 Moderately serious
- 2 Not very serious
- 1 Not at all serious

2. How likely are you to intervene in this situation?

- 5 Very likely
- 4 Likely
- 3 Somewhat likely
- 2 Not very likely
- 1 Not at all likely

3. Would you call this bullying?

- 1 Yes
- 2 No

**You witness an older child kick a younger child in the shin out of anger from losing. You have seen the older child behave this way before. The child who was kicked screams, in obvious pain.**

1. How seriously do you rate this conflict?

- 5 Very serious
- 4 Serious
- 3 Moderately serious
- 2 Not very serious
- 1 Not at all serious

2. How likely are you to intervene in this situation?

- 5 Very likely
- 4 Likely
- 3 Somewhat likely
- 2 Not very likely
- 1 Not at all likely

3. Would you call this bullying?

- 1 Yes
- 2 No

**You witness a grade 8 student pull the brastrap of a grade 6 student. Other children laugh and snicker. The girl blushing with embarrassment, says "would you please stop doing that!". This is the third time this has happened this week.**

1. How seriously do you rate this conflict?

- 5 Very serious
- 4 Serious
- 3 Moderately serious
- 2 Not very serious
- 1 Not at all serious

2. How likely are you to intervene in this situation?

- 5 Very likely
- 4 Likely
- 3 Somewhat likely
- 2 Not very likely
- 1 Not at all likely

3. Would you call this bullying?

- 1 Yes
- 2 No

**Appendix B**

## Bullying Attitudes Questionnaire – Revised: Male Version

Imagine you are a teacher supervising a playground during recess. Please read the short description and answer the questions that follow.

Here is an example question:

**You witness two children, one is in a grade above the other. The older student spits on the younger and then laughs. The younger child runs away to the other end of the schoolyard, and spends the rest of the recess alone. You have heard from other teachers that this child is frequently teased by peers.**

How likely are you to intervene in this situation?

**5** - Very likely   **4** - Likely   **3** - Somewhat likely   **2** - Not very likely   **1** - Not at all likely

In the example given, if decide you are not very likely to intervene, you would circle 2. There is no right or wrong answer - it is entirely your own opinion.

If you would intervene in this situation, please list what you would do:

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Please **circle** the **number** that corresponds best with your opinion for each of the scenarios.

**Matthew comes over to you, crying, saying he was called "stupid" and "retarded" by Paul, an older child. Matthew has been complaining about Paul quite a bit lately. You did not witness the event.**

How likely are you to intervene in this situation?

**5** - Very likely    **4** - Likely    **3** - Somewhat likely    **2** - Not very likely    **1** - Not at all likely

If you would intervene in this situation, please list what you would do:

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**You witness an older child, Steven, who says to Derek, a younger child, "No, absolutely not, I already told you, you can't play with us, you're no good at this game". Derek walks away with tears in his eyes.**

How likely are you to intervene in this situation?

**5** - Very likely    **4** - Likely    **3** - Somewhat likely    **2** - Not very likely    **1** - Not at all likely

If you would intervene in this situation, please list what would you do:

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**Jeffery, who is crying, says to you: "I keep asking to play with those big boys over there but they won't let me - they say I'm no good." You did not witness the event.**

How likely are you to intervene in this situation?

**5** - Very likely    **4** - Likely    **3** - Somewhat likely    **2** - Not very likely    **1** - Not at all likely

If you would intervene in this situation, please list what you would do:

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**You witness Joseph who says to Mark, a younger student, "You'll make us lose, we don't want you on our team, why do you keep asking when we keep telling you no?" Mark walks away, tears in his eyes.**

How likely are you to intervene in this situation?

**5** - Very likely    **4** - Likely    **3** - Somewhat likely    **2** - Not very likely    **1** - Not at all likely

If you would intervene in this situation, please list what you would do:

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**You witness an older student, Todd, chant to his younger playmate, Scott: "Teacher's pet, browner, keener, suck-up, kiss-ass ". Scott tries to ignore the remarks but sulks in a corner. You saw the same thing happen the other day.**

How likely are you to intervene in this situation?

5 - Very likely    4 - Likely    3 - Somewhat likely    2 - Not very likely    1 - Not at all likely

If you would intervene in this situation, please list what you would do:

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**You witness Timothy, an older student, say to Andrew, a younger student: "Hey, give me your lunch money or I won't be your friend". Andrew complies with the request at once. According to a colleague, this is not the first time this has happened.**

How likely are you to intervene in this situation?

5 - Very likely    4 - Likely    3 - Somewhat likely    2 - Not very likely    1 - Not at all likely

If you would intervene in this situation, please list what you would do:

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**John, crying, comes over to you, and says: "A big boy keeps making fun of me!". You did not witness the event. This is the third time it has happened this week.**

How likely are you to intervene in this situation?

**5** - Very likely    **4** - Likely    **3** - Somewhat likely    **2** - Not very likely    **1** - Not at all likely

If you would intervene in this situation, please list what you would do:

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**You witness a child, David, who says to another boy: "Only the big kids get to play on this part of the playground - we've been telling you all week - when are you gonna learn?". You know that there is no such rule. The rejected boy walks away with watery eyes.**

How likely are you to intervene in this situation?

**5** - Very likely    **4** - Likely    **3** - Somewhat likely    **2** - Not very likely    **1** - Not at all likely

If you would intervene in this situation, please list what you would do:

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**Robert, who appears to have been crying, says to you, "One of the older boys won't leave me alone, they keep calling me names - they did it yesterday, and the day before that, and the day before that." You did not witness the event.**

How likely are you to intervene in this situation?

**5** - Very likely    **4** - Likely    **3** - Somewhat likely    **2** - Not very likely    **1** - Not at all likely

If you would intervene in this situation, please list what you would do:

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**You witness James, an older student saying, "Hey fat boy...hey fat boy...hey ugly...come here." Tears stream down the so-called "fat boy's" face. A teacher forwarned you that the "fat boy" has been a target for name-calling lately.**

How likely are you to intervene in this situation?

**5** - Very likely    **4** - Likely    **3** - Somewhat likely    **2** - Not very likely    **1** - Not at all likely

If you would intervene in this situation, please list what you would do:

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**Eric comes to you and complains he was not allowed to play baseball for the third time this week because he is too young. Eric's face looks as though he has been crying. You did not witness the event.**

How likely are you to intervene in this situation?

**5** - Very likely    **4** - Likely    **3** - Somewhat likely    **2** - Not very likely    **1** - Not at all likely

If you would intervene in this situation, please list what you would do:

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**Jacob, who is crying, says to you: "the big boys won't let me get my ball because it's on their side". You know there is no such thing as a side of the playground for "big kids". As of late, on a few occasions, Jacob has raised the same complaint. You did not witness the event.**

How likely are you to intervene in this situation?

**5** - Very likely    **4** - Likely    **3** - Somewhat likely    **2** - Not very likely    **1** - Not at all likely

If you would intervene in this situation, please list what you would do:

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**THANK YOU FOR PARTICIPATING IN THIS RESEARCH!**

**Appendix C****Bullying Attitudes Questionnaire – Revised: Female Version**

Imagine you are a teacher supervising a playground during recess. Please read the short description and answer the questions that follow.

Here is an example question:

**You witness two children, one is in a grade above the other. The older student spits on the younger and then laughs. The younger child runs away to the other end of the schoolyard, and spends the rest of the recess alone. You have heard from other teachers that this child is frequently teased by peers.**

How likely are you to intervene in this situation?

**5** - Very likely    **4** - Likely    **3** - Somewhat likely    **2** - Not very likely    **1** - Not at all likely

In the example given, if decide you are not very likely to intervene, you would circle 2. There is no right or wrong answer - it is entirely your own opinion.

If you would intervene in this situation, please list what you would do:

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Please **circle** the **number** that corresponds best with your opinion for each of the scenarios.

**Amy comes over to you, crying, saying she was called "stupid" and "retarded" by Heather, an older child. Amy has been complaining about Heather quite a bit lately. You did not witness the event.**

How likely are you to intervene in this situation?

**5** - Very likely    **4** - Likely    **3** - Somewhat likely    **2** - Not very likely    **1** - Not at all likely

If you would intervene in this situation, please list what you would do:

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**You witness an older child, Jennifer, who says to Ann, a younger child, "No, absolutely not, I already told you, you can't play with us, you're no good at this game". Ann walks away with tears in her eyes.**

How likely are you to intervene in this situation?

**5** - Very likely    **4** - Likely    **3** - Somewhat likely    **2** - Not very likely    **1** - Not at all likely

If you would intervene in this situation, please list what would you do:

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**Jessica, who is crying, says to you: "I keep asking to play with those big girls over there but they won't let me - they say I'm no good." You did not witness the event.**

How likely are you to intervene in this situation?

**5** - Very likely    **4** - Likely    **3** - Somewhat likely    **2** - Not very likely    **1** - Not at all likely

If you would intervene in this situation, please list what you would do:

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**You witness Michelle who says to Nicole, a younger student, "You'll make us lose, we don't want you on our team, why do you keep asking when we keep telling you no?" Nicole walks away, tears in her eyes.**

How likely are you to intervene in this situation?

**5** - Very likely    **4** - Likely    **3** - Somewhat likely    **2** - Not very likely    **1** - Not at all likely

If you would intervene in this situation, please list what you would do:

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**You witness an older student, Karen chant to her younger playmate, Tiffany: "Teacher's pet, browner, keener, suck-up, kiss-ass ". Tiffany tries to ignore the remarks but sulks in a corner. You saw the same thing happen the other day.**

How likely are you to intervene in this situation?

5 - Very likely    4 - Likely    3 - Somewhat likely    2 - Not very likely    1 - Not at all likely

If you would intervene in this situation, please list what you would do:

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**You witness Melissa, an older student, say to Rachel, a younger student: "Hey, give me your lunch money or I won't be your friend". Rachel complies with the request at once. According to a colleague, this is not the first time this has happened.**

How likely are you to intervene in this situation?

5 - Very likely    4 - Likely    3 - Somewhat likely    2 - Not very likely    1 - Not at all likely

If you would intervene in this situation, please list what you would do:

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**Sarah, crying, comes over to you, and says: "A big girl keeps making fun of me!". You did not witness the event. This is the third time it has happened this week.**

How likely are you to intervene in this situation?

**5** - Very likely    **4** - Likely    **3** - Somewhat likely    **2** - Not very likely    **1** - Not at all likely

If you would intervene in this situation, please list what you would do:

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**You witness a child, Julie, who says to another girl: "Only the big kids get to play on this part of the playground - we've been telling you all week - when are you gonna learn?". You know that there is no such rule. The rejected girl walks away with watery eyes.**

How likely are you to intervene in this situation?

**5** - Very likely    **4** - Likely    **3** - Somewhat likely    **2** - Not very likely    **1** - Not at all likely

If you would intervene in this situation, please list what you would do:

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**Elizabeth, who appears to have been crying, says to you, "One of the older girls won't leave me alone, they keep calling me names - they did it yesterday, and the day before that, and the day before that." You did not witness the event.**

How likely are you to intervene in this situation?

**5** - Very likely    **4** - Likely    **3** - Somewhat likely    **2** - Not very likely    **1** - Not at all likely

If you would intervene in this situation, please list what you would do:

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**You witness Katie, an older student saying, "Hey fat girl...hey fat girl...hey ugly...come here." Tears stream down the so-called "fat girl's" face. A teacher forwarned you that the "fat girl" has been a target for name-calling lately.**

How likely are you to intervene in this situation?

**5** - Very likely    **4** - Likely    **3** - Somewhat likely    **2** - Not very likely    **1** - Not at all likely

If you would intervene in this situation, please list what you would do:

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**Christina comes to you and complains she was not allowed to play baseball for the third time this week because she is too young. Christina's face looks as though she has been crying. You did not witness the event.**

How likely are you to intervene in this situation?

**5** - Very likely    **4** - Likely    **3** - Somewhat likely    **2** - Not very likely    **1** - Not at all likely

If you would intervene in this situation, please list what you would do:

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**Samantha, who is crying, says to you: "the big girls won't let me get my ball because it's on their side". You know there is no such thing as a side of the playground for "big kids". As of late, on a few occasions, Samantha has raised the same complaint. You did not witness the event.**

How likely are you to intervene in this situation?

**5** - Very likely    **4** - Likely    **3** - Somewhat likely    **2** - Not very likely    **1** - Not at all likely

If you would intervene in this situation, please list what you would do:

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**THANK YOU FOR PARTICIPATING IN THIS RESEARCH!**

## Appendix D

### Reactions to Situations Survey: Male Witness Version

#### Reactions to Situations Survey

**Do not put your name on this survey. Your participation in this study is strictly voluntary. You may choose to stop at any time. Completing this survey will serve as your agreement to participate in this study. Please respond to all portions of the survey, giving your own opinions.**

#### Teacher Information:

Age \_\_\_\_\_

Racial / Ethnic Identity

\_\_\_\_\_ African American

\_\_\_\_\_ Native American

\_\_\_\_\_ Asian

\_\_\_\_\_ Hispanic

\_\_\_\_\_ Caucasian

\_\_\_\_\_ Other \_\_\_\_\_

How many years of experience do you have teaching children? \_\_\_\_\_

#### Classroom Information:

What grade do you teach? \_\_\_\_\_

How many different classes of students do you teach in an average day?

\_\_\_\_\_ I teach one class of students all day

\_\_\_\_\_ I rotate to teach other classes. If yes, how many different classes? \_\_\_\_\_

On average, about how many students do you have in the class(s) you teach? \_\_\_\_\_

**Instructions:**

Imagine you are a teacher supervising a playground during recess. Please read the short description and answer the questions that follow. Please check (✓) the answer that corresponds best with your likely interactions with each of the scenarios.

- 1. You witness Todd, an older student, saying, “Hey fat boy...hey fat boy...hey ugly...come here.” Tears stream down Scott’s (the so-called “fat boy”) face. A teacher forewarned you that Scott has been a target for name-calling lately.**

How likely are you to intervene in this situation?

Not at all likely     Not very likely     Somewhat likely     Likely     Very Likely

There are 14 strategies listed below. First, rate your likelihood of using each of the strategies from 1 (not at all likely) to 5 (very likely). Place the number that corresponds to your likelihood of intervention on the line in front of each strategy. For those strategies that also have names listed after them, please place a checkmark (✓) next to the appropriate name if you would use that particular strategy for the student. You may check both names if you would use the strategy for both students.

**1 = Not at all likely    2 = Not very likely    3 = Somewhat likely    4 = Likely    5 = Very Likely**

- Do nothing
  - Discuss it with other school staff members
  - Discuss it with your class
  - Encourage Todd to include Scott in activities
  - Encourage the students to work it out themselves
  - Have Todd apologize to Scott
  - Monitor/watch for future situations
  - Apply discipline to .....  Todd  Scott
  - Find an alternative student or activity to provide support for.....  Todd  Scott
  - Give advice on how to better handle such situations to .....  Todd  Scott
  - Notify parents of .....  Todd  Scott
  - Refer student(s) to principal .....  Todd  Scott
  - Refer student(s) to counselor .....  Todd  Scott
  - Apply discipline to .....  Todd  Scott
  - Talk with..... Todd individually     Scott individually     Both students together
- Other: \_\_\_\_\_

**2. You witness an older child, Eric, who says to Jacob, a younger child, “No, absolutely not, I already told you, you can't play with us, you're no good at this game.” Jacob walks away with tears in his eyes.**

How likely are you to intervene in this situation?

Not at all likely     Not very likely     Somewhat likely     Likely     Very Likely

There are 14 strategies listed below. First, rate your likelihood of using each of the strategies from 1 (not at all likely) to 5 (very likely). Place the number that corresponds to your likelihood of intervention on the line in front of each strategy. For those strategies that also have names listed after them, please place a checkmark (✓) next to the appropriate name if you would use that particular strategy for the student. You may check both names if you would use the strategy for both students.

**1 = Not at all likely    2 = Not very likely    3 = Somewhat likely    4 = Likely    5 = Very Likely**

- Do nothing
- Discuss it with other school staff members
- Discuss it with your class
- Encourage Eric to include Jacob in activities
- Encourage the students to work it out themselves
- Have Eric apologize to Jacob
- Monitor/watch for future situations
- Apply discipline to .....  Eric  Jacob
- Find an alternative student or activity to provide support for.....  Eric  Jacob
- Give advice on how to better handle such situations to .....  Eric  Jacob
- Notify parents of .....  Eric  Jacob
- Refer student(s) to principal .....  Eric  Jacob
- Refer student(s) to counselor .....  Eric  Jacob
- Apply discipline to .....  Eric  Jacob
- Talk with..... Eric individually     Jacob individually     Both students together

Other: \_\_\_\_\_



## Appendix E

### Reactions to Situations Survey: Male Not Witness Version

#### Reactions to Situations Survey

**Do not put your name on this survey. Your participation in this study is strictly voluntary. You may choose to stop at any time. Completing this survey will serve as your agreement to participate in this study. Please respond to all portions of the survey, giving your own opinions.**

#### Teacher Information:

Age \_\_\_\_\_

Racial / Ethnic Identity

\_\_\_\_\_ African American

\_\_\_\_\_ Native American

\_\_\_\_\_ Asian

\_\_\_\_\_ Hispanic

\_\_\_\_\_ Caucasian

\_\_\_\_\_ Other \_\_\_\_\_

How many years of experience do you have teaching children? \_\_\_\_\_

#### Classroom Information:

What grade do you teach? \_\_\_\_\_

How many different classes of students do you teach in an average day?

\_\_\_\_\_ I teach one class of students all day

\_\_\_\_\_ I rotate to teach other classes. If yes, how many different classes? \_\_\_\_\_

On average, about how many students do you have in the class(s) you teach? \_\_\_\_\_

**Instructions:**

Imagine you are a teacher supervising a playground during recess. Please read the short description and answer the questions that follow. Please check (✓) the answer that corresponds best with your likely interactions with each of the scenarios.

- 1. John, who is crying, says to you: “I keep asking to play with those big boys over there but they won't let me - they say I'm no good.” You did not witness the event.**

How likely are you to intervene in this situation?

Not at all likely     Not very likely     Somewhat likely     Likely     Very Likely

There are 14 strategies listed below. First, rate your likelihood of using each of the strategies from 1 (not at all likely) to 5 (very likely). Place the number that corresponds to your likelihood of intervention on the line in front of each strategy. For those strategies that also have names listed after them, please place a checkmark (✓) next to the appropriate name if you would use that particular strategy for the student. You may check both names if you would use the strategy for both students.

**1 = Not at all likely    2 = Not very likely    3 = Somewhat likely    4 = Likely    5 = Very Likely**

- Do nothing
- Discuss it with other school staff members
- Discuss it with your class
- Encourage the boys to include John in activities
- Encourage the students to work it out themselves
- Have the boys apologize to John
- Monitor/watch for future situations
- Apply discipline to .....  the boys  John
- Find an alternative student or activity to provide support for.....  the boys  John
- Give advice on how to better handle such situations to .....  the boys  John
- Notify parents of .....  the boys  John
- Refer student(s) to principal .....  the boys  John
- Refer student(s) to counselor .....  the boys  John
- Apply discipline to .....  the boys  John
- Talk with..... the boys individually     John individually     Both students together

Other: \_\_\_\_\_

**2. David comes over to you, crying, saying he was called “stupid” and “retarded” by Matt, an older child. David has been complaining about Matt quite a bit lately. You did not witness the event.**

How likely are you to intervene in this situation?

Not at all likely     Not very likely     Somewhat likely     Likely     Very Likely

There are 14 strategies listed below. First, rate your likelihood of using each of the strategies from 1 (not at all likely) to 5 (very likely). Place the number that corresponds to your likelihood of intervention on the line in front of each strategy. For those strategies that also have names listed after them, please place a checkmark (✓) next to the appropriate name if you would use that particular strategy for the student. You may check both names if you would use the strategy for both students.

**1 = Not at all likely    2 = Not very likely    3 = Somewhat likely    4 = Likely    5 = Very Likely**

- Do nothing
  - Discuss it with other school staff members
  - Discuss it with your class
  - Encourage Matt to include David in activities
  - Encourage the students to work it out themselves
  - Have Matt apologize to David
  - Monitor/watch for future situations
  - Apply discipline to .....  Matt  David
  - Find an alternative student or activity to provide support for.....  Matt  David
  - Give advice on how to better handle such situations to .....  Matt  David
  - Notify parents of .....  Matt  David
  - Refer student(s) to principal .....  Matt  David
  - Refer student(s) to counselor .....  Matt  David
  - Apply discipline to .....  Matt  David
  - Talk with.....  Matt individually     David individually     Both students together
- Other: \_\_\_\_\_

## Appendix F

### Reactions to Situations Survey: Female Witness Version

#### Reactions to Situations Survey

**Do not put your name on this survey. Your participation in this study is strictly voluntary. You may choose to stop at any time. Completing this survey will serve as your agreement to participate in this study. Please respond to all portions of the survey, giving your own opinions.**

#### Teacher Information:

Age \_\_\_\_\_

Racial / Ethnic Identity

\_\_\_\_\_ African American

\_\_\_\_\_ Native American

\_\_\_\_\_ Asian

\_\_\_\_\_ Hispanic

\_\_\_\_\_ Caucasian

\_\_\_\_\_ Other \_\_\_\_\_

How many years of experience do you have teaching children? \_\_\_\_\_

#### Classroom Information:

What grade do you teach? \_\_\_\_\_

How many different classes of students do you teach in an average day?

\_\_\_\_\_ I teach one class of students all day

\_\_\_\_\_ I rotate to teach other classes. If yes, how many different classes? \_\_\_\_\_

On average, about how many students do you have in the class(s) you teach? \_\_\_\_\_

**Instructions:**

Imagine you are a teacher supervising a playground during recess. Please read the short description and answer the questions that follow. Please check (✓) the answer that corresponds best with your likely interactions with each of the scenarios.

- 1. You witness Julia, an older student, saying, “Hey fat girl...hey fat girl...hey ugly...come here.” Tears stream down Molly’s (the so-called “fat girl”) face. A teacher forwarned you that Molly has been a target for name-calling lately.**

How likely are you to intervene in this situation?

Not at all likely     Not very likely     Somewhat likely     Likely     Very Likely

There are 14 strategies listed below. First, rate your likelihood of using each of the strategies from 1 (not at all likely) to 5 (very likely). Place the number that corresponds to your likelihood of intervention on the line in front of each strategy. For those strategies that also have names listed after them, please place a checkmark (✓) next to the appropriate name if you would use that particular strategy for the student. You may check both names if you would use the strategy for both students.

**1 = Not at all likely    2 = Not very likely    3 = Somewhat likely    4 = Likely    5 = Very Likely**

- Do nothing
- Discuss it with other school staff members
- Discuss it with your class
- Encourage Julia to include Molly in activities
- Encourage the students to work it out themselves
- Have Julia apologize to Molly
- Monitor/watch for future situations
- Apply discipline to .....  Julia  Molly
- Find an alternative student or activity to provide support for.....  Julia  Molly
- Give advice on how to better handle such situations to .....  Julia  Molly
- Notify parents of .....  Julia  Molly
- Refer student(s) to principal .....  Julia  Molly
- Refer student(s) to counselor .....  Julia  Molly
- Apply discipline to .....  Julia  Molly
- Talk with..... Julia individually     Molly individually     Both students together

Other: \_\_\_\_\_

**2. You witness an older child, Katie, who says to Emily, a younger child, “No, absolutely not, I already told you, you can't play with us, you're no good at this game.” Emily walks away with tears in her eyes.**

How likely are you to intervene in this situation?

Not at all likely     Not very likely     Somewhat likely     Likely     Very Likely

There are 14 strategies listed below. First, rate your likelihood of using each of the strategies from 1 (not at all likely) to 5 (very likely). Place the number that corresponds to your likelihood of intervention on the line in front of each strategy. For those strategies that also have names listed after them, please place a checkmark (✓) next to the appropriate name if you would use that particular strategy for the student. You may check both names if you would use the strategy for both students.

**1 = Not at all likely    2 = Not very likely    3 = Somewhat likely    4 = Likely    5 = Very Likely**

- Do nothing
- Discuss it with other school staff members
- Discuss it with your class
- Encourage Katie to include Emily in activities
- Encourage the students to work it out themselves
- Have Katie apologize to Emily
- Monitor/watch for future situations
- Apply discipline to .....  Katie  Emily
- Find an alternative student or activity to provide support for.....  Katie  Emily
- Give advice on how to better handle such situations to .....  Katie  Emily
- Notify parents of .....  Katie  Emily
- Refer student(s) to principal .....  Katie  Emily
- Refer student(s) to counselor .....  Katie  Emily
- Apply discipline to .....  Katie  Emily
- Talk with.....  Katie individually     Emily individually     Both students together

Other: \_\_\_\_\_

## Appendix G

### Reactions to Situations Survey: Female Not Witness Version

#### Reactions to Situations Survey

**Do not put your name on this survey. Your participation in this study is strictly voluntary. You may choose to stop at any time. Completing this survey will serve as your agreement to participate in this study. Please respond to all portions of the survey, giving your own opinions.**

#### Teacher Information:

Age \_\_\_\_\_

Racial / Ethnic Identity

\_\_\_\_\_ African American

\_\_\_\_\_ Native American

\_\_\_\_\_ Asian

\_\_\_\_\_ Hispanic

\_\_\_\_\_ Caucasian

\_\_\_\_\_ Other \_\_\_\_\_

How many years of experience do you have teaching children? \_\_\_\_\_

#### Classroom Information:

What grade do you teach? \_\_\_\_\_

How many different classes of students do you teach in an average day?

\_\_\_\_\_ I teach one class of students all day

\_\_\_\_\_ I rotate to teach other classes. If yes, how many different classes? \_\_\_\_\_

On average, about how many students do you have in the class(s) you teach? \_\_\_\_\_

**Instructions:**

Imagine you are a teacher supervising a playground during recess. Please read the short description and answer the questions that follow. Please check (✓) the answer that corresponds best with your likely interactions with each of the scenarios.

- 1. Amy, who is crying, says to you: "I keep asking to play with those big girls over there but they won't let me - they say I'm no good." You did not witness the event.**

How likely are you to intervene in this situation?

Not at all likely     Not very likely     Somewhat likely     Likely     Very Likely

There are 14 strategies listed below. First, rate your likelihood of using each of the strategies from 1 (not at all likely) to 5 (very likely). Place the number that corresponds to your likelihood of intervention on the line in front of each strategy. For those strategies that also have names listed after them, please place a checkmark (✓) next to the appropriate name if you would use that particular strategy for the student. You may check both names if you would use the strategy for both students.

**1 = Not at all likely    2 = Not very likely    3 = Somewhat likely    4 = Likely    5 = Very Likely**

- Do nothing
- Discuss it with other school staff members
- Discuss it with your class
- Encourage the girls to include Amy in activities
- Encourage the students to work it out themselves
- Have the girls apologize to Amy
- Monitor/watch for future situations
- Apply discipline to .....  the girls  Amy
- Find an alternative student or activity to provide support for.....  the girls  Amy
- Give advice on how to better handle such situations to .....  the girls  Amy
- Notify parents of .....  the girls  Amy
- Refer student(s) to principal .....  the girls  Amy
- Refer student(s) to counselor .....  the girls  Amy
- Apply discipline to .....  the girls  Amy
- Talk with.....  the girls individually     Amy individually     Both students together

Other: \_\_\_\_\_



**2. Sarah comes over to you, crying, saying she was called “stupid” and “retarded” by Anna, an older child. Sarah has been complaining about Anna quite a bit lately. You did not witness the event.**

How likely are you to intervene in this situation?

Not at all likely     Not very likely     Somewhat likely     Likely     Very Likely

There are 14 strategies listed below. First, rate your likelihood of using each of the strategies from 1 (not at all likely) to 5 (very likely). Place the number that corresponds to your likelihood of intervention on the line in front of each strategy. For those strategies that also have names listed after them, please place a checkmark (✓) next to the appropriate name if you would use that particular strategy for the student. You may check both names if you would use the strategy for both students.

**1 = Not at all likely    2 = Not very likely    3 = Somewhat likely    4 = Likely    5 = Very Likely**

- Do nothing
- Discuss it with other school staff members
- Discuss it with your class
- Encourage Anna to include Sarah in activities
- Encourage the students to work it out themselves
- Have Anna apologize to Sarah
- Monitor/watch for future situations
- Apply discipline to .....  Anna     Sarah
- Find an alternative student or activity to provide support for.....  Anna     Sarah
- Give advice on how to better handle such situations to .....  Anna     Sarah
- Notify parents of .....  Anna     Sarah
- Refer student(s) to principal .....  Anna     Sarah
- Refer student(s) to counselor .....  Anna     Sarah
- Apply discipline to .....  Anna     Sarah
- Talk with..... Anna individually     Sarah individually     Both students together

Other: \_\_\_\_\_  
 \_\_\_\_\_

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**EDUCATION**

The Pennsylvania State University, University Park, PA   **M.S.**, School Psychology, 1998  
Thesis: “The Relationship Among Learning Behaviors, Problem Behaviors, and Social Skills”

The Pennsylvania State University, University Park, PA   **B.S.**, Psychology, 1995

**PROFESSIONAL EXPERIENCE**

**School Psychological Service Provider**, Westbrook School Department, Westbrook, ME  
**October 2002 to June 2005, 2 days a week**

Conducted psychoeducational evaluations of students in kindergarten through 5<sup>th</sup> grade.  
Served as a member of IEP team meetings. Consulted with school personnel and parents regarding academic and behavioral issues.

**Adjunct Instructor**, Southern Maine Community College, South Portland, ME  
**August 2002 to May 2003**

Taught introductory psychology courses. Advised students regarding academic issues.

**School Psychologist**, Livingston Educational Service Agency, Howell, MI  
**August 2000 to June 2002, 40 to 50 hours per week**

Conducted psychoeducational evaluations of students in preschool through 6<sup>th</sup> grade.  
Served as a member of child study and IEP team meetings. Consulted with school personnel and parents regarding academic and behavioral issues.

**Pre-Doctoral School Psychology Intern**, Colonial School District, Plymouth Meeting, PA  
**August 1999 to June 2000, 40 to 50 hours per week**

Completed psychoeducational evaluations of students in preschool through grade 12.  
Co-facilitated counseling groups with general and special education students. Consulted with teachers and staff concerning academic and behavior problems.

**PUBLICATIONS**

Schaefer, B. A., Shur, K. F., Macri-Summers, M., & MacDonald, S. L. (2004). Preschool children’s learning behaviors, concept attainment, social skills, and problem behaviors: Validity evidence for Preschool Learning Behaviors Scale scores. *Journal of Psychoeducational Assessment*, 22, 15-32.