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Identifying the Contextual Factors of Indirect Bullying Situations that Influence Canadian Teachers' Intervention Behaviour
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Running Head: IDENTIFYING CONTEXTUAL FACTORS OF INDIRECT BULLYING

Identifying The Contextual Factors Of Indirect Bullying Situations That Influence Canadian Teachers' Intervention Behaviour

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Abstract

Indirect bullying is a form of peer victimization that is observed as frequently occurring in both males and females yet is often overlooked by teachers. Nine bullying situation characteristics were created, which contained 3 to 4 descriptive levels. These bullying situation characteristics were then used to create unique randomly generated questionnaires consisting of 17 unique choice tasks. One hundred and ninety four teachers participated. Using latent class analysis two segments with different influences on intervention were identified. The Group 1 segment teachers (28%) were found to be less influenced by specific information regarding bullies and victims while making intervention decisions and instead assimilated more elements of a bullying situation into consideration. Furthermore, these teachers were found to be more sensitive to covert acts of indirect bullying. The Group 2 segment teachers (72%) decisions were more influenced by the vulnerability of the child who is victimized as well as to physical components of bullying situations. These findings indicate that there is a need for greater focus on the vulnerability of children who bully as well as greater emphasis on indirect bullying within bullying prevention training for teachers.

Identifying The Contextual Factors Of Indirect Bullying Situations That Influence Canadian Teachers' Intervention Behaviour

The problem of bullying and victimization is one that exists and that has been studied around the world. Bullying is defined as repeated exposure to negative actions, either through physical gestures, with words or through indirect means, that have a hostile intent, and that cause distress to the victim. Bullying involves a power difference between the bully and victim, making it harder for victims to defend themselves (Olweus, 2003). Most recently, bullying has been described as a destructive relationship problem by which children who bully learn to use aggression to control their victims who in turn become increasingly defenseless (Craig & Pepler, 2007). There exist different methods of bullying. For example, direct bullying harms others through the use of physical and verbal aggression such as hitting, kicking, threats, and intimidation, while indirect bullying harms others in a surreptitious manner through damage to interpersonal relationships using gossip, social exclusion, or rumor spreading (Bjorkqvist, Lagerspetz, & Kaukianen, 1992; Côté, Vaillancourt, Barker, Nagin & Tremblay, 2007; Crick, Casas & Mosher, 1997). The term indirect bullying shares commonalities with both relational aggression and social aggression. Relational bullying includes both direct and indirect forms of aggressive behaviour where harm or threat of harm to relationships serves as the primary means of hurting a victim (Crick, Ostrov, Burr, Cullerton-Sen, Jansen-Yeh & Ralston, 2006; Ostrov & Crick, 2007). Social bullying inflicts harm through damaging another individual's self-esteem and social status, or even both (Galen & Underwood, 1997). The term indirect bullying will be used for the purpose of this study to refer to acts

of indirect aggression since it is hard to draw the distinction between aggression and bullying (Bjorkqvist, 2001).

Research on the prevalence of bullying has been studied in Europe for many years. Despite the considerable resources that have been allocated to solving bullying problems in the last three decades, there are indications that the problem is actually getting worse. For example, in a 2002 survey study of Scandinavian students aged 8 to 16 years old, it was found that the percentage of Scandinavian students who had reported being bullied rose by approximately 50% since 1983 and the percentage of students who had been involved in bullying others had increased by about 65% since 1983 (Olweus, 2003).

Canadian research has shown that bullying problems in Canada are comparable to those in Europe. According to a report from the Public Agency of Canada, Canadian children ranked 26th out of 35 countries with respect to rates of students who bully other children and 27th with respect to rates of being victimized by peers (Craig & Edge, 2008). Data from Public Agency of Canada also indicated that in 2006 39% of students in grade 6 to 10 admitted to bullying others, 36% admitted to having been bullied, and 20% reported having both bullied others and having been bullied at least twice over a two month period. More recently, it has been found that, of 11,152 students in grades 4 to 12 in southern Ontario, 12.3% of students were classified as students victim of bullying, 5.4% as students who bully others, and 4.0% as both students who are victimized and bully others (Vaillancourt et al., 2010). It was also found that 19.5% of students reported feeling unsafe at school. In elementary school 20.5% of students reported feeling unsafe whereas 16.7% of secondary school students reported feeling unsafe. Thirty-nine percent

of elementary students reported that recess/break time was the most unsafe area, whereas the hallway was reported as the most unsafe area by 44.3% of secondary students.

As of February 2010 new legislation in Ontario requires that school staff report serious student incidences of bullying to the principal and that principals in turn contact the parents of the victims (Ministry of Education, 2009). In order for this legislation to be fully effective, it is essential to understand how teachers perceive incidents of indirect bullying. This is important because as opposed to direct bullying, which is more easily observed, indirect bullying is not always easy to recognize. The present study was designed to determine what characteristics of the situations in which bullying occurs influence teachers' response to incidents of indirect bullying.

Intervention programs for bullying

The "Olweus Bullying Prevention Program", also known as the whole-school method is an anti-bullying intervention program that has received the most research attention (Olweus, 2003). This method builds on four key principles: a positive and genuine interest and involvement from adults, firm limits on acceptable behaviour, consistent application of nonpunitive and nonphysical sanctions for violations of rules, and adults who act as authorities and positive role models. Olweus-type intervention programs are designed to raise awareness of bullying in peers, parents, and school officials in order that they can recognize bullying when it occurs and effectively put a stop to it.

Recent meta-analyses showed that the implementation of anti-bullying intervention programs in schools did not significantly reduce bullying rates (Merrell, Gueldner, Ross & Isava, 2008; Smith, Schneider, Smith & Ananiadou, 2004). A meta-analysis of program evaluation research by Smith et al. (2004) of schools who had adopted whole-school programs found that this class of intervention, in the vast majority of cases yielded nonsignificant results in its effectiveness in reducing bullying rates. In certain instances the rates of bullying increased. However, this might be explained by the sensitization of students to bullying and therefore may partially account for the nonsignificant results (Smith, et al., 2004). It was found that the quality of implementation of the whole-school intervention approach varied greatly from one study to the next. Only some of the studies had incorporated systematic procedures to ensure that the planned interventions were implemented with fidelity and in many of the cases implementation of certain aspects of the program were elective. Similar results were found in a recent meta-analysis conducted by Merrell et al. (2008) that included various anti-bullying intervention methods. The authors found evidence of the usefulness of the intervention methods aiming to enhance students' social competence, self-esteem, and peer acceptance. They also found evidence that the school bullying interventions enhanced teachers' knowledge of effective anti-bullying practices, feelings of efficacy towards intervention skills, and in behavioural response to bullying incidents. There was no support found for bullying prevention interventions in reducing student involvement in bullying and victimization. Therefore, Merrell et al. (2008) found that the positive effects of the anti-bullying interventions were too weak to be considered meaningful.

In an example of a Canadian study conducted by Rahey and Craig (2002), the effectiveness of a whole-school anti-bullying program was evaluated. At post-test, they found that bullying had not significantly decreased amongst the students. What they found was that teacher supervision and teacher intervention did not increase at the school that adopted the whole-school anti-bullying program. Furthermore, research on the effectiveness of the WITS primary program, a Canadian developed school-wide bullying prevention program, found only a moderate effect of the intervention in decreasing levels of physical and relational bullying (Leadbeater, Hoglund, & Woods, 2003).

Although these intervention programs have not produced significant positive results in decreasing bullying behaviour, these results justify the need for further research conducted on anti-bullying interventions in order to understand and improve those practices.

Teachers and bullying

Students can display various behaviours in the classroom that are disruptive to learning. The results of a survey of 844 teachers' views on 16 types of undesirable student behaviour revealed that bullying and rudeness were two of the most seriously distressing student behaviours for teachers compared to other behaviours, such as lying, disobedience, and carelessness (Borg & Falzon, 1989).

Teachers are responsible to ensure that their classrooms are safe and therefore must able to correctly identify and address any incidences of bullying. However, teachers reported feeling inadequate in their ability to prevent bullying (Siann, Callaghan, Lockhart, & Rawson, 1993). The results of this study also revealed that these teachers

relied on their subjective understanding to determine what constituted an act of bullying, rather than any external, objective standard. It has also been reported that teachers feel inadequate in their ability to cope with the demands of intervening with recurrent bullying incidents on top of fulfilling the duties of their professional curriculum (Mishna, Scarcello, Pepler, & Wiener, 2005). These teachers also reported that a lack of knowledge on how to address indirect bullying contributed to the difficulty in recognizing incidents and intervening appropriately.

Teachers who have been given resources on how to address bullying have been found to use them incompletely. A 3-year study of schools in which a violence prevention program was implemented was conducted in order to determine the degree to which teachers varied in their adherence to the program (Briggs, Vernberg, Twemlow, Fonagy & Dill, 2008). It was found that the children in classrooms in which the teachers adhered closely to the program were more helpful to victims of bullying compared to children in classrooms in which the teachers were less adherent to the program. Teachers were found to have a tendency to integrate elements of anti-bullying interventions that fit most easily with their teachings, such as daily reflection time, than elements that required a bigger disruption to routine. These program components therefore may not be the most adequate at fully addressing certain bullying behaviours. Furthermore, it was found that their use of the program was related to their attitudes towards its utility and helpfulness. Teachers who believed in the programs' philosophy were more likely to adopt the program. These intervention behaviours and attitudes towards intervention programs offer a partial explanation for the ineffectiveness of these programs.

The ability of teachers to recognize not only physical bullying but also instances of indirect bullying is essential in the prevention of bullying behaviour. When asked to describe what constitutes an act of bullying through the use of self-report questionnaires, most teachers surveyed stated that physical aggression was regarded as bullying whereas relational aggression was not (Boulton, 1997; Craig, et al., 2000; Hazler, Miller, Carner & Green, 2001). It has also been found that these teachers not only labeled physical aggression as bullying more often than verbal aggression, but they also viewed physical bullying as being more serious and thus more worthy of intervention (Craig, et al., 2000; Mishna, et al., 2005). Moreover, bullying was regarded by teachers as being more serious when manifested by a boy rather than a girl (Borg & Flazon, 1989).

There exist certain aspects of bullying incidents that can influence teachers' recognition of bullying and thus influence their intervention behaviour. In a survey study of 270 trainee teachers, most of the participants felt highly confident in their ability to help a victimized student, yet their confidence significantly decreased in regards to making students who bully stop bullying (Nicolaides, Toda & Smith, 2002). In a survey study of 138 experienced teachers, teachers reported feeling inadequate in their ability to deal with bullying (Boulton, 1997). Teachers reported that they did not feel that they had enough knowledge of bullying to adequately intervene. It was also found that teachers' years of experience were indirectly correlated with their compassion towards victims: as years of experience increased, teachers were less likely to show empathy towards victims of bullying. Through a questionnaire study of 116 student teachers, it was found that the experience of victimization was more likely to be understood by individuals who scored high on empathy (Craig, et al., 2000). Teachers who scored high on empathy were more

likely to perceive bullying as serious and worthy of intervention. Furthermore, Yoon and Kerber (2003) found that teachers would not intervene if they did not feel sympathy for the victim. These studies indicate the influence of empathy and compassion in correctly identifying and addressing bullying.

In addition to the recognition of bullying incidents there also exists factors that influence teachers' understanding of bullying, which in turn influences subsequent intervention. Kochenderfer-Ladd and Pelletier (2008) found that the beliefs teachers hold about bullying influence their decision to intervene. Certain teachers were found to hold assertiveness beliefs, such that victimization was related to a lack of assertiveness on the victimized students' part. These teachers were found to tell or expect victimized students to assert themselves. Furthermore, it was also found that certain teachers who hold normative views about bullying (e.g., bullying is a normal part of childhood development) did not feel it was necessary to intervene. Certain contextual factors that influence how teachers understand and respond to bullying incidents were identified through a qualitative study of teachers with varying teaching experience (Mishna et al., 2005). The contextual factors that were found to influence teachers' behaviour towards bullying incidents included whether or not they believed the victimized student was to blame, whether or not the victimized student fit into their assumptions about victim attributes, whether or not they experienced feelings of empathy towards the victimized student, and whether or not they deemed the bullying situation as serious.

Study Rationale

The primary objective of this study was to identify the contextual attributes of indirect bullying that influence teachers' decisions to intervene in bullying situations. The secondary objective was to determine what contextual attributes of bullying incidents influence teachers' decisions to intervene in particular bullying situations. This study was designed to determine the kind of bullying situations, including different types of bullying, in which teachers are inclined to intervene.

Teachers' ability to discern indirect bullying in the school context may vary according to a variety of factors. Drawing on the reviewed literature, it can be said that teachers tend to have an incomplete knowledge about bullying. This leads them, in some circumstances, to make inaccurate judgments about which behaviours constitute as acts of bullying and which do not. Physical aggression is most commonly reported by teachers as constituting an act of bullying and as being worthy of intervention (Boulton, 1997; Craig, et al., 2000; Mishna, et al., 2005). Thus, physical acts such as punching and pushing are more likely to be identified as bullying and to motivate teachers to intervene compared to indirect acts, such as gossiping and manipulating others maliciously. Indirect bullying is harder to identify due to its surreptitious nature. If a students' behaviour is considered by the teacher to be an act of bullying, then the intervention behaviour is more likely to take place, if not then there will be no intervention behaviour. This judgment likely influences their implementation of discipline and intervention. The current study was designed to determine what attributes within bullying situations influence teachers' willingness to intervene by presenting teachers with different bullying scenarios. These scenarios were created from a longer list of different contextual

attributes. The bullying situations in which teachers decided to intervene in the context of the forced-choice task in this study presumably unveil the underlying importance teachers place on the different attributes that make up a bullying situation and are likely to motivate them to act.

The present study improves in several important ways on earlier investigation regarding teachers' interventions in bullying situations. Certain contextual factors that influence teachers' willingness to intervene in bullying situations have been identified (Mishna, et al., 2005). However, these were determined using a small qualitative sample consisting of only 13 teachers. This study was designed to determine influential contextual attributes through the use of a larger sampling frame of a Canadian teacher federation. Furthermore, the study by Craig, et al. (2000) included a sample of student teachers that either had very little or no experience in the school setting, yet is the only study to directly take into account the effect of personal attitudes towards bullying on intervention behaviour. This study's sample consisted of teachers with varying years of experience.

Research question

The current study was designed to answer the following questions: (1) what contextual attributes of indirect bullying situations influence teachers' decisions to intervene, and (2) what overall contextual attributes within bullying situations are most salient in influencing teachers' decisions to intervene?

Methodology

Research Design

This study used a survey methodology in order to identify the contextual attributes of indirect bullying that influence teachers' intervention behaviour as well as to determine what contextual attributes of bullying incidents influence teachers' willingness to intervene. In order to do so, participants were asked to fill in a web-based questionnaire pertaining to their demographic information, their personal experiences with bullying as children, and intervention decisions when faced with hypothetical bullying scenarios. The use of a web-based survey format was chosen in order to attain the largest sample possible to both increase the power and generalizability of the results.

Participants

The final sample for this study consisted of 194 participants, of which 77% were women and 23% were men. In order to test the representativeness of the sample, the demographics of the final sample were compared to the demographics obtained from the Ontario College of Teachers (2008). The Ontario College of Teachers (2008) reported that in 2008 73% of their members were women and 27% were men. Thus, the sample distribution in the current study is comparable to the general distribution of teachers by gender in Ontario. No additional data were available from the Ontario College of Teachers that allowed comparison with the study's data. Additional general demographic information can be found in Table 1.

Table 1. Demographics of the study's sample

Measure	%
Sex	
Men	23
Women	77
Currently Working in a School	
Yes	88
No	12
Current Employment Status	
Full-Time	93
Non Full-Time	7
Geographic location of school	
Large city downtown area (>100.000)	20
Suburb area (>100,000)	40
Small-medium sized city area (10,000-100,000)	24
Town/village area (<10,000)	12
Rural/agricultural area	4
Experience	
% 5 years or less	14
% 6-10 years	25
% 11-15 years	17
% Over 15 years	44

(continued)

Table 1. Demographics of the study's sample (continued)

Measure	%
Grade levels being taught	
Kindergarten	13
Elementary (grades 1-3)	32
Junior (grades 4-6)	28
Intermediate (grades 7-8)	27
Senior (grades 9-12)	37
Other	7

Procedure

Participants for the on-line survey were recruited through membership in a provincial teachers federation in the province of Ontario. All teacher-members of this association were invited to complete the on-line survey. The information about the study was sent out by email from a contact individual in the federation's head office to each of the federations' unit presidents (one per school). The unit presidents were instructed in the email to forward the original message to their unit members using their local e-mail network. A link to the survey was embedded in the email. In addition, the survey was advertised on the federation's website with the link to the survey provided. Finally, notification about the survey was placed in the federation's two print newsletters, which were sent directly to each member.

After receiving the approval of the provincial teachers federation and the University of Ottawa's ethics committee, participants were sent an email invitation

through their association to participate in this web-based survey (Appendix A). All participants were asked to read and agree to an online ethical consent form by checking a box before gaining access to the survey (Appendix B). Participants were able to access the website and complete the questionnaires within a three week window after receiving the initial invitation for participation. A reminder email about the study was sent one week after the invitation to participate in the survey was sent. A second, and final, reminder email was sent one week following the first reminder email.

Measures

Participants completed a web-based questionnaire consisting of three sections, which are described below. This survey was available in both French and English. The complete survey is presented in Appendix C.

Demographics. Participants were asked to answer eight questions pertaining to personal characteristics. One item pertained to their gender. One item pertained to their highest training obtained (e.g., college diploma, undergraduate degree, graduate certificate, master's degree, doctorate degree). The following 6 items pertained to their employment, including their current employment (e.g., currently working in a school), employment status (e.g., part-time, full-time, supplementary), level of teaching (e.g., primary, secondary), years of experience (e.g., 1 year or less, 1-5 years), as well as their school's geographical location (e.g., rural, suburb, city).

Personal experiences. Participants were provided with the following definition of bullying: "Bullying refers to repeated aggressive behaviour intended to hurt another child. Children who bully have a power advantage over victimized children, making it

difficult for victims to defend themselves". Participants were asked about their personal experience with bullying as a student in elementary or high school, including whether or not they had ever experienced bullying, engaged in bullying behaviour or witnessed bullying (e.g., direct bullying, indirect bullying, or both). Participants were also asked to rate the frequency of these events (e.g., less than once a month, about once a month, about once a week, 2 or more times a week), over how long a period of time it persisted (e.g., 1-6 months, 6-12 months, 1 to 2 years, 2 to 5 years, over 5 years), as well as their perceived level of distress (e.g., extremely distressing, moderately distressing, somewhat distressing, not at all distressing).

Participants were asked whether or not a bullying prevention program is in place at their school. Participants who indicated that their school had a bullying prevention program were then asked to describe the characteristics of the intervention program using a list of descriptors provided to them. The list of characteristics of the anti-bullying intervention was adapted from Smith, Cousins, and Stewart (2005), which included six categories (school-wide, classroom, peer, individual, parents, and community). Participants were also asked whether or not they had received bullying prevention training. Participants were also asked to rate their level of confidence in the application and knowledge of bullying prevention techniques (e.g., "the bullying prevention training I have received is adequate to my current needs") on a 4-point Likert-type scale with anchors from strongly disagree to strongly agree.

Attribute selection. The following section of the survey, developed for the purpose of this study, utilized a discrete choice conjoint analysis survey method in order to determine what situational characteristics of bullying situations are most salient and

thus deemed as requiring immediate intervention by teachers. This method, used primarily by marketing researchers, conceptualizes a product or service as possessing a set of attributes (e.g., attributes of a car include colour, engine size, etc.) (Orme, 2006). Each attribute is comprised of multiple levels (e.g., colour: green, blue, red). In the choice task, 2-3 attribute levels, each drawn from a different attribute, are combined to create a unique attribute set. The sets are then assembled (usually in random fashion) in groups of 3-4 to create survey items. Survey respondents are instructed to choose one preferred set from the varying sets that comprise the item (Hensher, Rose, & Greene, 2005).

Participants were prompted to consider each trio of attributes in relation to the others and choose the one that best reflects the situation in which they are likely to intervene (Orme, 2006). Nine bullying situation attributes were created, 8 comprised of 4 levels and 1 comprised of 3 levels. The contextual attributes for the bullying situations used in this study were adapted from the PREVNet factsheet, which includes 7 categories of bullying: physical bullying, verbal bullying, social bullying, electronic bullying, racial bullying, sexual bullying, and disability bullying (PREVNet, 2009). Ten attributes were originally created and presented to representatives from various Ontario teacher federations. These attributes were further elaborated into the following: indirect bullying, disability status, socio-economic status, aggravation, victim distress, frequency of victimization, physical size, gender, and academic status. Within each attribute multiple attribute levels were created. For example, the attribute levels within indirect bullying were: a bully coaxes a student to shove someone in the hallway, a bully spreads rumors about a victim, a bully deliberately excludes a victim from a game, a bully ridicules a victim on a website. In order to lessen the burden on the participants during the choice

task, the labels "bully" and "victim" were used instead of "child who bullies" and "child who is victimized". The scenarios are intended to be reflective of teachers' reality in addressing bullying in school settings by prompting them to weigh certain situational characteristics in their decisional process to intervene. Participants completed a total of 17 choice sets (figure 1). This method reduces social desirability biases allowing for a better prediction of actual behaviour through the display of consistency in the participants' responses and demonstrated preferences (Ryan et al., 2001).

Fig. 1 An example of the type of choice task format used in the 17 choice tasks completed by each participant.

Imagine you simultaneously witness the following 3 situations. You can only intervene in 1.

Which one would you choose?

Situation 1	Situation 2	Situation 3
Victim is constantly bullied Bully is bigger than victim Bully coaxes a student to shove someone in the hallway	Victim is rarely bullied Bully & victim same size Bully spreads rumors about a victim	Victim is never bullied Victim is bigger than bully Bully deliberately excludes a victim from a game
o	o	o

Results

Bullying Prevention. With regards to bullying prevention programs, 72% of participants reported that their school had a program, 17% reported their school did not have a program and 11% reported not knowing if their school had a program. Of the 72% in schools with prevention programs, they reported that their bullying prevention program contained the following elements: class-led intervention (80%), school-wide (76%), individual (65%), peer-led intervention (49%), community (49%), and parents (41%). However, 56% of survey respondents reported never having received any training in bullying prevention. When asked to indicate their degree of agreement with the statement that they believed the bullying prevention training they received was adequate to their current needs, 26% strongly disagreed, 31% disagreed, 38% agreed, and only 5% strongly agreed. When asked to indicate their level of agreement with the statement that they feel confident with what they had learned about bullying prevention, 16% strongly disagreed, 30% disagreed, 45% agreed, and only 9% strongly agreed. Finally, when asked whether participants felt that they needed more bullying prevention training, 6% strongly disagreed, 21% disagreed, 43% agreed, and 30% strongly agreed.

Segmentation Analysis. Hierarchical Bayesien methods (CBC/HB 3.1) were used to calculate utility coefficients for each participant (Sawtooth Software Inc., 2004). In the conjoint choice analysis procedure, participants' preferences are uncovered by asking them to evaluate several attribute sets and to choose one set according to specific criteria provided by the researchers. In the present study, teachers were asked to select the bullying situation in which they would intervene first. The statistical analysis generates a utility score for each level of each attribute used in the survey. The utility scores within

each attribute are standardized (zero-centered) (Hensher et al., 2005; Orme, 2006). The utility score represents the level of satisfaction that a choice alternative gives to a participant with higher values indicating higher preference (Hensher et al., 2005). Importance scores were then calculated by converting each utility value range into a percentage of the sum of the utility value range of all attributes. Higher importance scores are associated with attributes exerting more influence on participants' preference choices in the overall choice task (Orme, 2006).

Victim distress and frequency of victimization were the attributes that emerged as having the most influence on teacher intervention as illustrated in Table 2. Comparatively, physical characteristics and gender were the attributes that were found to exert the least influence on teacher intervention with the other attributes spread across.

Table 2. Overall importance scores and utility scores ranked in order of importance

Attribute		Score	SD
Victim Distress		**22.18**	**5.69**
	Victim is greatly distressed	105.55	30.96
	Victim is moderately distressed	15.13	22.96
	Victim is a little distressed	-29.63	21.83
	Victim is not distressed	-91.05	31.43
Frequency of Victimization		**17.01**	**4.52**
	Victim is constantly bullied	76.51	36.40
	Victim is often bullied	39.98	20.32
	Victim is never bullied	-56.68	20.75
	Victim is never bullied	-59.80	24.32
Disability		**11.93**	**3.02**
	Victim has a physical disability and the bully does not	61.94	21.61
	Bully and victim have a physical disability	-10.46	21.50
	Neither victim nor bully have a physical disability	-20.31	23.56
	Bully has a physical disability and the victim does not	-31.17	22.37

(continued)

Table 2. Overall importance scores and utility scores ranked in order of importance (continued)

Attribute	Score	SD
Aggravation	**11.74**	**4.49**
Victim did not aggravate the bully	46.22	38.81
Victim probably did not aggravate the bully	13.60	25.69
Victim definitely aggravated the bully	-21.70	37.79
Victim probably aggravated the bully	-38.12	37.79
Indirect Bullying	**10.61**	**4.59**
Bully coaxes a student to shove someone in the hallway	25.66	42.61
Bully spreads rumors about a victim	-5.09	25.98
Bully ridicules a victim on a website	-8.01	46.25
Bully deliberately excludes a victim from a game	-12.56	30.20
Academic Status	**7.22**	**2.61**
Bully is a high achiever and victim is a low achiever	27.16	26.86
Bully and victim are low achieving students	0.11	18.03
Bully and victim are high achieving students	-11.30	17.13
Bully is a low achiever and victim is a high achiever	-15.97	20.05
Socio-Economic Status	**6.61**	**2.54**
Bully from high SES family and victim from low SES family	22.60	16.89
Bully and victim from low SES families	3.69	22.96
Bully from low SES family and victim from high SES family	-6.21	19.39
Bully and victim from high SES families	-20.08	16.53
Physical Characteristics	**7.00**	**2.12**
Bully is bigger than the victim	34.01	13.45
Bully and victim are same size	-14.34	16.21
Victim is bigger than the bully	-19.67	14.66
Gender	**5.69**	**2.37**
Bully is a boy and victim is a girl	17.22	22.73
Bully is a girl and victim is a boy	-1.23	17.10
Bully and victim are boys	-7.85	15.99
Bully and victim are girls	-8.13	19.46

Sawtooth Software's Latent Class (Version 3) module was set to identify segments of respondents with different intervention preferences based on the sample's

utility scores and importance scores (Orme, 2006). The program requires the researcher to select the desired number of segments to be identified. In typical practice, the researcher will repeat the segment analysis adding one additional group in each iteration of the analysis until no segments can be identified by the program and/or the additional segments add no interpretative value to the results. In the present study, two segments with different intervention preferences were identified in the first iteration of the analysis. In the second iteration, three segments with different intervention preferences were identified by the program. However, when the three segments were examined, it was apparent that the three group segment solution did not add interpretative value to the results. Consequently, the two-segment solution was retained. Latent class analysis produced two segments with 28% of participants in a Group 1 segment and 72% of participants in a Group 2 segment.

Chi square analyses were used in order to compare the demographic characteristics of the two segments. Years of experience, sex, highest level of education, current work status, current employment status, and teaching level did not differ significantly across the two segments (Table 3). Once segregated into groups, no significant differences of having a bullying prevention program in the school and of having received bullying prevention were found between the groups (X^2 (2, N = 226) = 2.73, *ns*; X^2 (1, N = 226) = 0.01, *ns*) (Table 3).

Table 3. Demographics of 2 groups

Measure	N	n	Segment		X^2	*P*
			Group 1	Group 2		
Sample Size	194		55	139		
Sex	194				2.56	
% Men		45	37.8	62.2		
% Women		149	25.5	74.5		
Experience	171				1.07	0.78
% 5 years or less		23	30.4	69.6		
% 6-10 years		42	26.2	73.8		
% 11-15 years		30	26.7	73.3		
% Over 15 years		76	34.2	65.8		
Currently Working in a School	194				3.01	
% Yes		171	30.4	69.6		
% No		23	13.0	87.0		
Current Employment Status	171				0.77	0.38
% Full-Time		159	29.6	70.4		
% Non Full-Time		12	41.7	58.3		
Highest Level of Education	194				4.01	0.13
% Undergraduate Degree		126	24.6	75.4		
% Graduate Certificate		36	41.7	58.3		
% Master's Degree		32	28.1	71.9		
Bullying Prevention Program in School	226				1.17	0.28
% Yes		162	33	67		
% No		38	24	76		

(continued)

Table 3. Demographics of 2 groups (continued)

Measure	N	n	Segment		X^2	*P*
			Group 1	Group 2		
Ever received Bullying Prevention Training	226				0.01	
% Yes		100	30	70		
% No		126	29	71		

In order to determine the effects of the segment analysis on the contextual attributes, a multivariate analysis of variance was conducted across importance scores as well as across utility values. Between-segment MANOVAs across importance scores, $F(9, 216)=18.76$, $p<0.001$, and utility values, $F(26, 199)=20.43$, $p<0.001$, yielded statistically significant segment effects. Thus, there was a significant difference in preference between both groups in terms of all the importance scores and all the utility values albeit expected due to the Latent Class analysis that identified and distinguished these two groups based on their intervention preferences.

Victim Distress. Importance scores (Table 4) showed that this attribute had a higher influence on the choices of Group 2 than Group 1. Utility values (Table 4) show that while both groups showed a high influence on intervention when the victim is greatly distressed, Group 2 showed a significant influence on intervention when the victim was moderately distressed than Group 1. Group 1 showed a significantly higher influence on intervention when the victim was not distressed than Group 2.

Table 4. Importance scores and utility values for the group 1 and group 2 segments

Attribute	Segment						*F*
	Group 1			Group 2			
Content of Attribute Level	R[1]	Score	SD	R	Score	SD	
Victim Distress	1	19.9	7.6	1	23.1	4.3	16.78***
Victim is greatly distressed		89.1	41.7		112.5	21.8	30.3***
Victim is moderately distressed		12.5	31.0		16.2	18.5	1.3**
Victim is a little distressed		-20.7	28.6		-33.4	17.0	17.2
Victim is not distressed		-80.9	44.6		-95.3	22.7	10.3*
Frequency of Victimization	2	17.1	5.8	2	17.0	3.9	.08
Victim is constantly bullied		66.4	50.3		80.7	27.7	7.5**
Victim is often bullied		42.4	25.7		39.0	17.6	1.3
Victim is never bullied		-47.0	26.1		-60.8	16.4	23.2***
Victim is rarely bullied		-61.9	33.5		-58.9	19.2	0.7
Indirect Bullying	3	12.8	5.2	5	9.7	4.0	23.1***
Bully coaxes a student to shove someone in the hallway		14.0	51.4		30.6	37.4	7.3**
Bully spreads a rumor about a victim		8.4	33.6		-10.8	19.5	28.6***
Bully deliberately excludes a victim from a game		-1.18	39.7		-17.4	23.7	14.3***
Bully ridicules a victim on a website		-21.2	57.5		-2.5	39.5	8.0**
Disability	4	11.12	3.7	4	12.3	2.6	7.0**
Victim has a physical disability bully does not		46.7	26.3		68.4	15.3	60.2***
Neither victim nor bully has a physical disability		-8.2	32.2		-25.4	16.4	28.1***
Bully and victim have a physical disability		-10.0	29.2		-10.6	17.4	0.0
Bully has a physical disability victim does not		-28.4	29.2		-32.3	18.8	1.5

(continued)

Table 4. Importance scores and utility values for the group 1 and group 2 segments (continued)

Attribute	Segment						*F*
	Group 1			Group 2			
Content of Attribute Level	R[1]	Score	SD	R	Score	SD	
Aggravation	5	9.5	4.4	3	12.7	4.2	27.2***
Victim definitely aggravated the bully		13.2	37.7		-36.4	26.5	126.6***
Victim did not aggravate the bully		12.9	41.9		60.3	27.2	101.9***
Victim probably did not aggravate the bully		-9.3	25.2		23.3	18.9	114.2***
Victim probably aggravated the bully		-16.7	28.2		-47.1	15.0	110.8***
Socio-Economic Status	6	8.8	2.7	8	5.7	1.8	98.0***
Bully from high SES family victim from low SES family		25.1	22.5		21.5	13.8	2.1
Bully and victim from low SES families		10.9	20.7		0.7	18.8	9.7**
Bully from low SES family victim from high SES family		-9.4	27.9		-4.9	14.3	2.6
Bully and victim from high SES families		-26.6	20.5		-17.3	13.7	15.7***
Academic Status	7	7.7	3.1	7	7.0	2.3	3.6
Bully is a high achiever and victim is a low achiever		14.3	36.3		32.6	19.4	24.2***
Bully and victim are low achieving students		-0.4	23.5		0.3	15.2	0.1
Bully is a low achiever and victim is a high achiever		-6.5	25.5		-20.0	15.7	23.5***
Bully and victim are high achieving students		-7.4	23.5		-13.0	13.3	5.1*
Physical Characteristics	8	6.6	3.0	6	7.2	1.6	3.7
Bully is bigger than victim		27.6	17.9		36.7	10.0	23.9***
Bully and victim are same size		-11.7	22.9		-15.4	12.3	2.5
Victim is bigger than bully		-15.9	19.5		-21.3	11.8	6.6*

(continued)

Table 4. Importance scores and utility values for the group 1 and group 2 segments (continued)

Attribute	Segment						*F*
	Group 1			Group 2			
Content of Attribute Level	R[1]	Score	SD	R	Score	SD	
Gender	9	6.5	2.7	9	5.3	2.1	13.2***
Bully is a boy and victim is a girl		7.3	27.9		21.4	18.8	19.6***
Bully is a girl and victim is a boy		4.9	23.3		-3.8	12.9	13.0***
Bully and victim are boys		-5.7	21.3		-8.8	13.1	1.7
Bully and victim are girls		-6.5	24.3		-8.8	17.1	0.6

[1] Rank of importance scores for each segment. Ranked according to importance of the Group 1 segment.
*p<0.05. **p<0.01. ***p<0.001

Frequency of Victimization. The importance of frequency of victimization (Table 4) did not differ between both groups. Although both groups showed an influence on intervention when the victim is constantly bullied, Group 2 showed a significant influence on intervention over Group 1 for this level. Conversely, Group 1 showed a significantly higher influence on intervention when the victim had never been bullied than Group 2 (Table 4).

Indirect Bullying. Indirect bullying was shown to exert a greater influence on intervention for Group 1 than Group 2 (Table 4). Both segments preferred intervention when a bully coaxed a student to shove someone in the hallway. However, Group 2 showed a significant difference in influence for this item and for a bully ridiculing a victim on a website than Group 1. Group 1 showed a significant difference in intervention influence for a bully spreading a rumor about a victim and for a bully deliberately excluding a victim from a game than Group 2 (Table 4).

Disability. This attribute was more important for Group 2 than Group 1 (Table 4). Although both groups showed an influence on intervention when a victim has a physical disability and the bully does not, Group 2 showed a higher influence for this than Group 1. Group 2 also showed a statistically significant influence on intervention when neither the victim nor the bully has a physical disability than Group 1. However, Group 1 showed a statistically significant influence on intervention when neither the bully nor the victim had a physical disability than Group 2 (Table 4).

Aggravation. Aggravation was more important for Group 2 than Group 1 (Table 4). Utility values show that Group 2 is more likely to intervene if the victim did not

aggravate the bully than Group 1. However, Group 1 showed a significant influence on intervention when the victim definitely and when the victim probably aggravated the bully than Group 2 (Table 4).

Socio-economic status. The students' family socio-economic status was more important for Group 1 than Group 2 (Table 4). While both groups showed an influence on intervention when the bully was from high SES family and the victim from low SES status, Group 1 showed a statistically significant influence on intervention when the bully and victim were from low SES status than Group 2. Group 2 showed a statistically significant influence on intervention when the bully and victim were from high SES families than Group 1 (Table 4).

Academic Status. The importance of academic status did not differ between the two groups (Table 4). While both groups showed an influence on intervention when the bully is a high achieving student and the victim is a low achieving student, Group 2 showed a statistically significant influence for this than Group 1. Group 1 also showed a statistically significant influence on intervention when the bully and victim are high achieving students and when the bully is a low achiever and the victim is a high achiever than Group 2 (Table 4).

Physical Characteristics. The importance of physical characteristics did not differ between the two groups (Table 4). Although both groups showed an influence on intervention when the bully is bigger than the victim, Group 2 showed a statistically significant influence to this than Group 1. However, Group 1 showed a statistically

significant influence on intervention when the victim is bigger than the bully than Group 1 (Table 4).

Gender. Gender was more important for Group 1 than Group 2 (Table 4). Both groups showed an influence on intervention when the bully is a boy and the victim is a girl (Table 4). However, Group 2 showed a statistically significant influence for this intervention than Group 1 while Group 1 showed a statistically significant influence on intervention when the bully is a girl and the victim is a boy than Group 2.

Discussion

There were two primary objectives of the present study: (1) to identify the contextual factors of indirect bullying that influence teachers' intervention behaviour, and (2) to determine what overall contextual factors of bullying incidents influence teachers' willingness to intervene. This study employed an innovative marketing research methodology that elicits underlying influences on decision-making. Teachers were presented with unique bullying scenarios with varying elements and were asked to select the situation in which they would likely intervene first.

Segment Analysis

This methodology allowed us to distinguish groups of respondents that were influenced in their decision-making about bullying intervention in similar ways. Two groups were identified. There were no significant demographic differences in the distribution of gender, years of teaching experience, level of education, current work status, and current employment status between the two groups. Furthermore, no

significant differences between groups in having received bullying prevention training and whether or not their school had a bullying prevention program in place were found.

Group 1. The Group 1 teachers (constituted by 28% of the entire sample) revealed through their decisions to intervene in particular bullying situations presented in the survey high sensitivity to contextual factors within bullying situations that are less typical or obvious. The Group 1 teachers were found to be less influenced than the Group 2 teachers by specific information regarding the personal characteristics (e.g., size) of both the children who bully and the victimized children when making intervention decisions. This suggests that these teachers assimilate more elements of the bullying situation into their decision making process about whether or not they should intervene. As a group, these teachers appear to be more evenly influenced by all of the different attribute levels rather than attending particularly to a narrower set of attributes levels.

The Group 1 teachers displayed particular sensitivity to covert forms of verbal and social bullying, such as a student victimizing a classmate by spreading a rumor and a student deliberately excluding another student from a game. This group of teachers show a trend counter to dominant research findings indicating that teachers are more sensitive to physical aspects of bullying and less so of other types such as verbal and social forms of bullying (Boulton, 1997; Craig, et al., 2000, Hazler, Miller, Carner & Green, 2001; Mishnal et al., 2005).

Students' family socio-economic factor was found to be of more importance for the Group 1 teachers than the Group 2 teachers. This segment, unlike Group 2, displayed

a preference to intervene when the bullying child and the victimized child are from low SES status.

Group 2. The contextual factors influencing decisions of Group 2 teachers (72% of the full sample in this study) to intervene in bullying situations in the school reflected a significant concern for the plight of vulnerable victims. Findings from this segment are similar to previous findings about teacher intervention behaviours and beliefs (Borg & Flazon, 1989; Craig et al. 2000; Kochenderfer-Ladd & Pelletier, 2008; Mishna, et al., 2005).

The intervention decisions of these teachers suggest that they are motivated to protect victimized students they believe are more disadvantaged in bullying situations. Although both segments attributed most importance to victim distress in their decision to intervene, this attribute appears to have exerted more influence on this segment of respondents, indicating that these teachers rely on victimized students' characteristics, such as signs of distress, when attending to bullying situations. Another power imbalance between the student who bullies and the student who is victimized that influenced the Group 2 teachers was when the victimized student was constantly bullied. Disability status was another characteristic that these teachers were more influenced by; more specifically, when the victimized student has a physical disability while the bullying student did not, suggesting another display of their attention to the power imbalance. The Group 2 teachers were more influenced when the bullying student was a high achieving student and the victimized student was a low achieving student. Consistent with previous findings indicating that teachers believe bullying is more serious and worthy of intervention when the student who bullies is male, the Group 2 teachers were more

influenced when the student who bullies was a boy and the victimized student was a girl (Borg & Flazon, 1989; Kochenderfer-Ladd & Pelletier, 2008; Mishna, et al., 2005) even though it has been found that within-gender bullying is more common than between-gender bullying (Crick, et al., 2006; Rigby, 2002).

The Group 2 teachers were more likely than the Group 1 teachers to intervene when the victimized student did not aggravate the bullying student. This suggests that they are more inclined to intervene when they believed the victimized student was not to blame. These findings are consistent with previous findings reporting that teachers' willingness to intervene was influenced by whether or not they believed the victimized student was to blame for the bullying incident (Kochenderfer-Ladd & Pelletier, 2008; Mishna, et al., 2005).

The Group 2 teachers were found to be influenced by more overt forms of bullying such as a student coaxing someone to shove a student in the hallway and a student ridiculing another student on a website. These findings are consistent with previous findings that teachers place more importance on instances of physical bullying (Boulton, 1997; Craig, et al., 2000; Hazler, Miller, Carner & Green, 2001).

Indirect Bullying

As discussed in the literature review, teachers' have a tendency to rate forms of physical aggression as bullying more often and more seriously than relational or verbal aggression, as well as deem instances of physical bullying as more worthy of intervention (Boulton, 1997; Craig, et al., 2000; Hazler, Miller, Carner & Green, 2001; Mishna, et al., 2005). One of the primary goals of the study was to identify the contextual factors of

indirect bullying situations that influence teachers' intervention behaviour. The present study was also designed to identify the rate of importance attributed to different indirect bullying situations in relation to their influence on intervention.

As predicted, teachers rated indirect bullying situations that contained a physical aspect as more important than situations that contained verbal, social and cyber-bullying aspects. Given the overt nature of physical bullying, these findings are not surprising. However, while both segments placed the most intervention importance on this form of bullying, it was found that the Group 2 teachers placed significantly more intervention importance on this form of bullying than the Group 1 teachers. The Group 2 teachers also placed significantly more importance on indirect bullying instances of cyber-bullying than the Group 1 teachers. The Group 1 teachers placed significantly more intervention importance than the Group 2 teachers on both indirect bullying instances of verbal and social aggression. These findings show that, as previously discussed, the Group 1 teachers were more sensitive to the covert forms of indirect bullying than the Group 2 teachers.

Indirect bullying as an attribute compared with all other attributes was not regarded as the most important contextual factor of a bullying situation by either group. It was found that the Group 1 teachers rated this type of bullying as of third importance overall while the Group 2 teachers rated it as of fifth importance overall when making a decision about intervening in a bullying situation. This difference was also found to be significant between the two groups with the Group 1 teachers as attributing significantly more importance to this attribute than the Group 2 teachers.

Contextual Factors

The second objective of this study was to indentify what contextual factors of bullying situations influence teachers' willingness to intervene. Previous contextual factors that influence teachers' willingness to intervene that were found were; teachers' views of whether the victimized student was to blame, whether the victimized student fit into their assumptions about victim attributes, whether they experienced feelings of empathy towards the victimized student, and whether they deemed the bullying situation as serious (Mishna et al., 2005). Adding to these previous findings, it was found that overall, the victimized students' distress was the most influential attribute of a bullying situation followed by frequency of victimization, disability, aggravation, indirect bullying, academic status, physical characteristics, socio-economic status, and finally, gender. Similarly to the findings of Mishna et al. (2005) it was found that aggravation of the bullying situation, whether the victimized students played a role in their victimization, exerted influence on teachers' willingness to intervene.

Bullying Prevention

The data permitted examination of teachers' prior experiences with bullying prevention and their current needs for additional prevention training. Almost three quarters of teachers participating in this study reported working in schools where a bullying prevention program was in place. However, more than half of the teachers participating in this study reported never having received bullying prevention training. Only half of the participants felt confident in using what they had learned about bullying prevention. More than half felt that the training they had received was not adequate to

their needs as well as believing that they needed more bullying prevention training. These findings are consistent with previous findings that teachers feel unconfident in dealing with bullying situations and that they lacked knowledge on how to effectively intervene in these situations (Boulton, 1997; Nicolaides, Toda & Smith, 2002).

Implications for Practice

Indirect Bullying. Findings from the current study indicate the need for education for teachers about indirect bullying. Only a small number of participants demonstrated sensitivity to more covert forms of bullying and of less commonplace characteristics of students who bully and students who are victimized. There needs to be an increase in teachers' awareness about the seriousness and severity of incidental bullying and its consequences on both students who bully and students who are victimized.

Bullying Prevention. As of February 2010 teachers in Ontario must, by law, report any incidences of bullying to their principal, who in turn must notify the students' parents. It has been found, however, that teachers feel inadequate and unconfident in addressing issues of bullying in their classrooms (Boulton, 1997; Nicolaides, Toda & Smith, 2002; Siann, Callaghan, Lockhart & Rawson, 1993). More than half of the participants in this current study have also reported feeling unconfident in their ability to use what they know about bullying prevention.

Research on the effectiveness of anti-bullying programs has so far yielded limited positive results that demonstrate that these programs reduce rates of bullying in schools (Merrell, et al., 2008; Smith, et al., 2004). Findings from this study point to a possible explanation for the pattern of outcomes in the evaluation literature: teacher training. In

the present study, half of the participating teachers never received bullying prevention training, despite the fact that three quarter of the participants worked in a school where a bullying prevention program is in place. This research was designed to find an understanding of the weaknesses of the current anti-bullying intervention methods with the hopes to modify the current intervention programs to account for these weaknesses and consequently increase their effectiveness in reducing the rate of bullying in schools. It is possible that teachers' lack of training in bullying prevention may account for their lack in confidence in addressing the issue of bullying and thus contributing to the lack of effectiveness of these programs.

A modification to the current bullying prevention training would be to increase the focus on the vulnerability of students who bully. Bullying has also been found to negatively impact the mental health and peer relationships of students who bully (Craig & Pepler, 2007; Salmivalli & Nieminen, 2002). Bully-victims have also been found to exhibit both externalizing and internalizing disorders (Salmivalli & Nieminen, 2002). However, this study found that the majority of teachers were attuned primarily to the vulnerability of the students who are victimized. Therefore, bullying prevention training programs need to be modified in order to sensitize teachers to the plight of students who bully who are also at significant risk of negative psychosocial and academic outcomes. This can be accomplished by moving away from a simplistic perspective of the problem that leads many teachers to protect students who are victimized and ignores the risks of bullying on the children who perpetrate it.

Limitations. One possible limitation to the present study is the use of a web-based survey as method of data collection. This method was selected in order to attain the

largest possible sample and reduce bias. While electronic data collection provides an easy and quick alternative, certain limitations, such as the lack of the population list and questionable representativeness of the sample data, are limitations that do exist (Creswell, 2005). However, due to the relatively easy access to the internet in homes, community, and school settings, as well as the large number of members belonging to the association, it was found that the final sample of participants in this survey was representative of teachers in Ontario.

Web-based questionnaires have been criticized for threats to internal validity due to the anonymity provided (Gosling, Vazire, Srivastava & John, 2004). In order to control for this, the survey was only accessible to teachers who were members of participating provincial teachers' federation and not to the general population. Participants were only able to access the survey through an email sent through the professional teacher organization.

Another limitation of the current study methodology was that the data were not collected through direct observation of teachers in schools, but rather through a controlled laboratory task. However, the methodology employed reduces social desirability biases and, therefore, allows a better prediction of actual behaviour through the display of consistency in the participants' responses and demonstrated preferences (Ryan et al., 2001). It still remains unknown how close the participants' decisions mimic real life decisions. Furthermore, the study participant were not asked to identify the type of intervention that they would be use in the scenarios with which they were presented. Thus, it similarly remains unknown whether or not survey respondents would use an intervention that is appropriate and beneficial to the students in the situations.

Future directions. Findings from this study have identified that the majority of teachers are attuned to the vulnerability of students who are victimized while only a small percentage of teachers took more elements of the situation into account when identifying bullying situations. An important direction for future research would be to indentify what individual teacher characteristics contribute to these differences in identifying bullying situations. These findings could contribute to a greater understanding of how certain contextual factors are given more importance than others. This understanding can then lead to raising teachers' awareness of personal characteristics that influence their identification of bullying situations. This knowledge would be used to improve the implementation of bullying prevention programs in schools.

In order to correct for the limitations created by laboratory tasks, it would be interesting to employ the direct observation methodology used by Craig and Pepler (1997). The researchers filmed children on school playgrounds, 3 times a day for several days at a time, using a camera with a very powerful zoom lens, so that the camera was placed inside each school, very far away from the children. All children within a classroom carried concealed microphones, yet only one of these was active at a time. Children did not know which child was carrying the live microphone at any given time. The camera followed the child with the live microphone. This methodology allowed for an unprecedented opportunity to see what life is like on the playground. While ethical constraints may prevent such research, replication of this study using teachers as participants would allow us to observe the situations of bullying that teachers are attuned to as well as identify the intervention strategy employed.

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Appendix A

Invitation

Subject: Invitation for bullying survey

Dear Teacher,

My name is Christine Blain-Arcaro and I am a master's student at the University of Ottawa working under the supervision of David Smith (Ph.D.). We are conducting an online survey about bullying, and we would like you to participate. Your responses to the survey will contribute to helping teachers respond as effectively as possible to bullying in their schools.

The survey will take about 20 minutes. In recognition of your contribution to this important project, we will be pleased (a) to provide you with a copy of the survey results and (b) to enter your name in a draw for 2 x $250 gift certificates for Chapters/Indigo.

The link below will bring you to the survey website. After entering a 4-digit number (of your choice) to activate the survey on the website, you will be presented with the consent form. This form provides detailed information about the research project. At the end of this form, you will be presented with the option to accept or decline our invitation.

Thank you for considering our request. If you have questions about the survey, please send us an email

[add link here]

Christine Blain-Arcaro, MA candidate
David Smith, PhD
Faculty of Education
University of Ottawa

Appendix B

Consent Form

Identifying The Contextual Factors Of Indirect Bullying Situations That Influence Canadian Teachers' Intervention Behaviour

Christine Blain-Arcaro (Master's student)
Faculty of Education, University of Ottawa

David Smith, Ph.D. (supervisor)
Associate professor and vice-dean of research
Faculty of Education, University of Ottawa

I am invited to participate in the abovementioned research conducted by Christine Blain-Arcaro and David Smith, Ph.D.

The primary objective of this study is to identify the contextual factors of indirect aggression that influence teachers' intervention behaviour. The secondary objectives are to determine what contextual factors of bullying incidents and what individual teacher characteristics influence teachers' willingness to intervene. The objectives of the study can help determine if teachers can discern incidents of bullying across a range of hypothetical classroom scenarios depicting bullying in different forms (direct, indirect, cyber-bullying), how teachers' perceptions of bullying affect their anticipated responses to bullying incidents, how teachers' levels of preparedness to address bullying affect their perceptions of bullying and intervention strategies, and what teachers need to meet new requirements to report bullying to school authorities. These results can provide a pathway in improving intervention implementation.

My participation will consist of completing, a single time, online questionnaire that will take approximately 20 minutes.

My participation in this study will entail some personal time required to answer the questionnaire. However, every effort has been made to reduce the length of the questionnaire.

My participation in this study will lead to an understanding of the weaknesses of the current anti-bullying intervention methods. With this understanding, it would be possible to modify the current intervention programs to account for these weaknesses and consequently increase their effectiveness in reducing the rate of bullying in schools. Furthermore, the results of this proposed research could possibly provide insight in raising awareness regarding teachers' attitudes towards the seriousness and severity of incidental bullying and its consequences on both victims and bullies. These implications can lead to a fuller engagement on the part of the teachers and administration in

prevention and intervention effort to eliminate bullying in schools.

The information that I will share will remain completely confidential. I understand that the contents will be used only for the purpose of the study and that my confidentiality and anonymity will be protected by separating my identifying information from the data. I will be prompted to create a password before gaining access to the questionnaire. This password is used to generate a unique questionnaire and cannot in any way be used to identify me. I will be asked to submit my email address at the end of the questionnaire, if I choose to do so, for two purposes: first to receive a summary of the research results and second to enter a draw for 2 x 250$ gift certificates for chapters indigo. I understand that it is my voluntary decision whether or not I submit my email address. I understand that it is impossible for the researchers to link my email address to my questionnaire responses.

The data collected will be kept in a secure manner, locked in a cabinet in the supervisor's (D. S.'s) office at the university. All electronic data will be printed and stored in hard-copy in the locked cabinet. Until the time of printing, all electronic data will the locked in the principal investigator's computer, which is password protected.
The data will be conserved for 5 years following publication.

I am under no obligation to participate and if I choose to participate, I can withdraw from the study at any time during completion of the survey and/or refuse to answer any questions, without suffering any negative consequences. However, I cannot withdraw at a later date due to the anonymity of the questionnaire and impossibility to identify individual responses.

I agree to participate in the above research conducted by Christine Blain-Arcaro of the Department of Education, University of Ottawa, which research is under the supervision of David Smith, Ph.D., by following the link below to the questionnaire.

If I have any questions about the study, I may contact the researcher or her supervisor.

If I have any questions regarding the ethical conduct of this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 159, Ottawa, ON K1N 6N5 Tel.: (613) 562-5841 Email: ethics@uottawa.ca

I acknowledge that it is recommended by the researchers that I print a copy of this form for my personal records.

Please click yes below if you have read, understood and agreed to the above statements:

o Yes, I have read and understood the above statements and agree to them.

o No. I do not wish to participate.

Appendix C

Questionnaire

Part I-Demographics

1. What is your gender?

O Male O Female

2. What is your highest level of education?

O College Diploma O Undergraduate degree (e.g. B.Ed., B.A.) O Graduate Certificate
O Master's degree (e.g. M.Ed., M.A.) O Doctorate degree (e.g. D.Ed., Ph.D.)

3.1 Are you currently working in a school?

O Yes O No (please go to question 4)

3.2. If yes, what is your current employment status?

O Full-time O Part-time O Occasional (e.g., supply teaching)

3.3. If yes, at what level are you teaching (please check all that may apply):

O Kindergarten O Elementary (1-3) O Junior (4-6)
O Intermediate (7-8) O Senior (9-12) O Other

3.4 How many years of teaching experience do you have?

O Under 1 year O 1-5 years O 6-10 years
O 11-15 years O Over 15 years

3.5 In what geographical context is your school located?

O Large city (100,000+) downtown O Large city (100,000+) suburb O Small to medium sized city (10,000-100,000)
O Town or village (less than 10,000) O Rural or agricultural area

Questions 4-6 pertain to your personal experience with bullying as a child in elementary or high school. For the purpose of this study bullying refers to repeated aggressive behaviour intended to hurt another child. Children who bully have a power advantage over victimized children, making it difficult for victims to defend themselves.

4.1. As a student in elementary or secondary school, were you ever a victim of bullying behaviour?

O Yes O No (Go to question 6)

4.2. If yes, as a student in elementary or secondary school what type of bullying were you a victim of?

O Direct bullying (e.g. physical or verbal bullying) O Indirect bullying (e.g. gossiping, social exclusion) O Both

4.3. How distressing was this experience for you?

O Extremely distressing O Moderately distressing
O Somewhat distressing O Mildly distressing

4.4. When the bullying you experienced was at it's worse, how frequently were you victimized?

O Less than once a month O About once a month
O About once a week O 2 or more times a week

4.5. Over how long a period of time did the victimizing persist?

O 1 month or less O 2-6 months
O 7-12 months O Over 12 months

5.1. As a student in elementary or secondary school, have you ever engaged in bullying behaviour?

O Yes O No (Go to question 7)

5.2. If yes, as a student in elementary or secondary school what type of bullying behaviour did you engage in?

O Direct bullying O Indirect bullying (e.g. O Both

(e.g. physical or verbal bullying)

gossiping, social exclusion)

5.3. When the bullying was at it's worse, how frequently did you bully others?

O Less than once a month
O About once a month
O About once a week
O 2 or more times a week

5.4. Over how long a period of time did your bullying behaviour persist?

O 1-6 months
O 7-12 months
O 1-2 years
O Over 2 years

6.1. As a student in elementary or secondary school, did you ever witness bullying behaviour?

O Yes
O No (Go to question 8)

6.2. If yes, as a student in elementary or secondary school what type of bullying behaviour did you witness?

O Direct bullying (e.g. physical or verbal bullying)
O Indirect bullying (e.g. gossiping, social exclusion)
O Both

6.3. How frequently were you witnessing bullying behaviour?

O Less than once a month
O About once a month
O About once a week
O 2 or more times a week

Questions 8 and 9 pertain to you currently as a teacher.

7.1. To your knowledge, does your school currently have a bullying prevention program?

O Yes
O No (Go to question 9)
O I don't know (Go to question 9)

7.2. To your knowledge, what following components are included in your program? (select all that apply)

O School-wide activities (e.g. Anti-bullying committee, Increased supervision)
O Peer (e.g. Peer-led interventions, Involvement of students in anti-bullying committee)

O Classroom
(e.g. Regular classroom discussion on topics surrounding bullying, Class exercises such as role plays or writing assignments)

O Individual
(e.g. Individual counselling for students who have bullied or who have been victimized, Group counselling for children who have bullying or who have been victimized)

O Parents
(e.g. Provide bullying-related information to parents through e.g. newsletters, Have parents participate directly in school anti-bullying program(s))

O Community
(e.g. convene meetings with community leaders and organizations, Encourage local media to cover school's effort)

8. Have you ever received bullying prevention training?

O Yes O No

Please rate the following statements on a scale from strongly disagree to strongly agree:

	Strongly Disagree	Disagree	Agree	Stron Agree
9.1. I feel that the bullying prevention training I have received is adequate for my current needs.	O	O	O	O
9.2. I am confident in the application of my current bullying prevention training.	O	O	O	O
9.3. I feel that I would need more bullying prevention training.	O	O	O	O

Part II

Attribute selection

Indirect bullying

- Bully coaxes a student to shove someone in the hallway
- Bully spreads a rumor about a victim
- Bully deliberately excludes a victim from a game
- Bully ridicules a victim on a website

Aggravation

- Victim definitely aggravated the bully
- Victim probably aggravated the bully
- Victim probably did not aggravate the bully
- Victim did not aggravate the bully

Distress

- Victim is greatly distressed
- Victim is moderately distressed
- Victim is a little distressed
- Victim is not distressed

Frequency

- Victim is constantly bullied
- Victim is often bullied
- Victim is rarely bullied
- Victim is never bullied

Physical characteristics

- Victim is bigger than bully
- Bully is bigger than victim
- Bully and victim are same size

Gender characteristics

Bully and victim are girls

Bully and victim are boys

Bully is a boy and victim a girl

Bully a girl and victim a boy

Disability characteristics

Bully has a physical disability victim does not

Victim has a physical disability bully does not

Bully and victim have a physical disability

Neither victim nor bully has a physical disability

Academic status

Bully and victim are high achieving students

Bully and victim are low achieving students

Bully is a high achiever and victim is a low achiever

Bully is a low achiever and victim is a high achiever

Socio-economic status

Bully and victim from high SES families

Bully and victim from low SES families

Bully from low SES family and victim from high SES family

Bully from high SES family victim from low SES family

Example:
Imagine you simultaneously witness the following 3 situations. You can only intervene in 1. Which one would you choose?

Situation 1	Situation 2	Situation 3
Victim is constantly bullied Bully is bigger than victim Bully coaxes a student to shove someone in the hallway o	Victim is rarely bullied Bully & victim same size Bully spreads rumors about a victim o	Victim is never bullied Victim is bigger than bully Bully deliberately excludes a victim from a game o