



## BULLYING: WHAT'S HAPPENING IN OUR SCHOOLS?

For many children, going to school represents a daily struggle. They no longer focus on learning, and their biggest hope is that the school day will end without another negative encounter with a peer. Bullying is not a Canadian or North American phenomenon: it exists across the world and affects not only children but people of all ages, social backgrounds, ethnicities, education levels, and socioeconomic status, whether at work, at home, or in their daily activities (Monks, Smith, Naylor, Barter, Ireland, & Coyne, 2009).

There are many ways to define bullying. Recently it has been described as an “aggressive, goal-directed behavior that harms another individual within the context of a power imbalance” (Volk, Dane, & Marini, 2014, p. 327). Different cultures may define it differently or use a different term for it (Hellström, Persson, & Hagquist, 2015), but, regardless of these differences, its manifestations in the school context have been explored in many large-scale studies.

This article analyses the responses to bullying-related questions in the contextual questionnaires of pan-Canadian and international large-scale assessment studies in which Canadian students have participated. It will focus on the prevalence of behaviours associated with

bullying across grades and over time in Canada and note the relationship between different background variables and bullying. The fact that bullying affects student achievement is well documented (Martin, Mullis, Foy, & Hooper, 2016; Mullis, Martin, Foy, & Hooper, 2016, 2017; OECD, 2017; UNESCO, 2019) and will not be discussed specifically in this issue of *Assessment Matters!*

There are many approaches to studying bullying in the school context. For some researchers, it can best be explained by looking at the social interactions within a given group, such as a social network. For others, observational reporting will provide a much more detailed account of the social dynamics of a group (Volk, Espelage, & Veenstra, 2017). Large-scale assessment projects have elected to study the phenomenon by focusing on its concrete manifestations from the victim's perspective. Such assessments use a contextual questionnaire to ask students to self-report whether they have experienced a number of bullying behaviours and, if so, at what frequency. These behaviours can be classified into different types: physical, verbal, relational, and, more recently, cyber.

## How assessments measure bullying

The Pan-Canadian Assessment Program (PCAP) is administered every three years to a large sample of Grade 8/Secondary II students across Canada. In PCAP's most recent cycle (2016), the Student Questionnaire that accompanied the assessment asked students to use a four-point Likert scale to report the prevalence of seven bullying behaviours. A Student Bullying Scale was created from these responses.

The Trends in International Mathematics and Science Study (TIMSS) is administered every four years to samples of Grade 4 and Grade 8/Secondary II students from several provinces. In TIMSS's most recent cycle (2015), the Student Questionnaire that accompanied the assessment covered nine behaviours, also asking students to indicate their prevalence using a four-point Likert scale. It should be noted that the questionnaires for both Grade 4 and Grade 8/Secondary II focused on the same behaviours, allowing for a direct comparison across the grades. As in PCAP, a Student Bullying Scale was derived from these responses (Martin, Mullis, Hooper, Yin, Foy, & Palazzo,

2016). In addition to TIMSS, the Progress in Reading Literacy Study (PIRLS) was administered to a large sample of Grade 4 students from most provinces in 2011 and 2016. PIRLS uses the same items to describe bullying behaviours as TIMSS, thus allowing for a direct comparison over time on the Student Bullying Scale at the Grade 4 level.

The Programme for International Student Assessment (PISA) is administered every three years to large samples of 15-year-old students from all provinces. In 2015, PISA also developed an Index of Exposure to Bullying, using a number of related items and a four-point Likert scale (OECD, 2016).

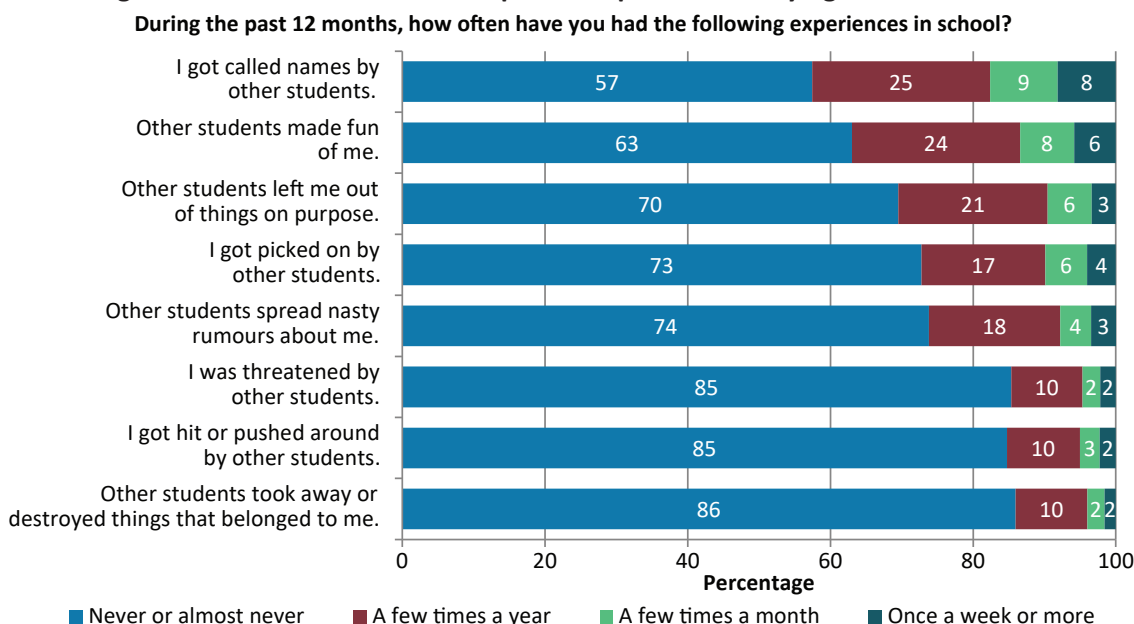
Although the measures are slightly different in each survey, the constructs are very similar (Ministry of Education, New Zealand, 2017), and correlations suggest a high level of agreement between the PISA and TIMSS (and PIRLS) measures and between PISA measures over time and TIMSS measures over time and across the grades (Smith & López-Castro, 2017).

### Compared to international averages, Canadian 15-year-old students report a greater incidence of bullying.

Among the 53 countries and economies for which data were available in PISA 2015, only 5 (Latvia, New Zealand, Singapore, Macao-China, and Australia) had a higher value on the Index of Exposure to Bullying than Canada, suggesting a relatively high prevalence of bullying in these countries. In fact, one in five Canadian 15-year-olds reported being the victim of a type of bullying act at least a few times a month. The most prevalent type of behaviour

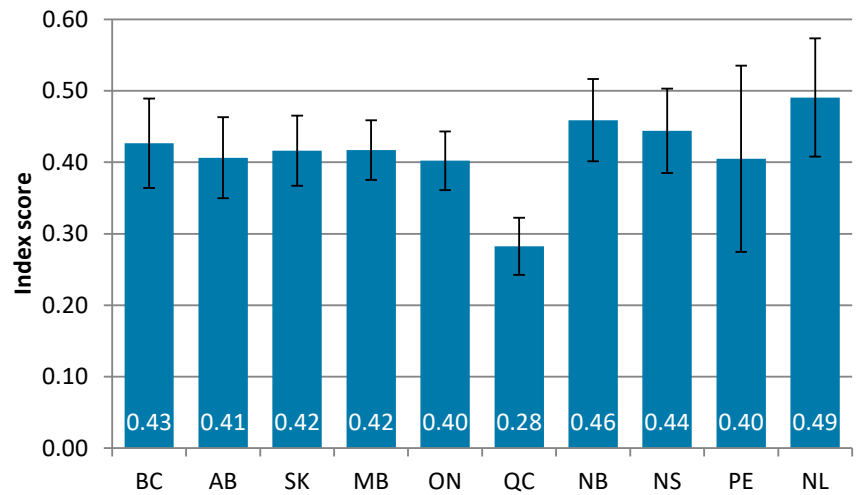
was that "I got called names by other students" (or verbal bullying), with 18 per cent of students reporting that such behaviour occurred at least a few times a month. Although more immediately serious (physical) threats happened less frequently, 15 per cent of students reported having been hit or pushed around by other students a few times a year or more (Figure 1).

**FIGURE 1** Percentage of Canadian students who reported exposure to bullying behaviour: PISA 2015



**FIGURE 2** Index of Exposure to Bullying by Canadian province: PISA 2015

With regard to the PISA Index of Exposure to Bullying, provinces are more similar than different, as shown in Figure 2. Quebec has a statistically lower score on the index than all other provinces except Prince Edward Island. The only other statistically significant difference is that students in Newfoundland and Labrador (0.49) reported higher levels of bullying than their counterparts in Ontario (0.40).



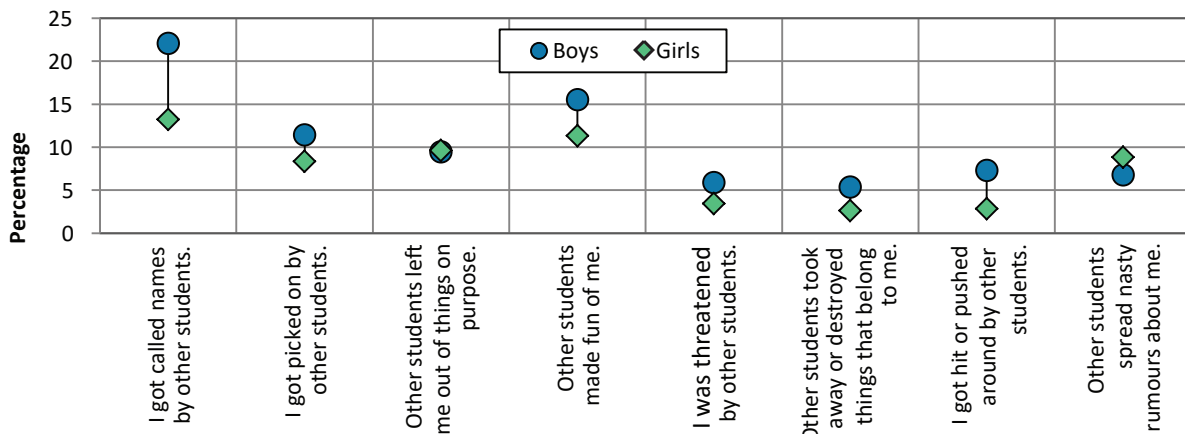
***In Canada, the proportion of students who are victims of bullying does not vary by language of the school system, but it does vary slightly by gender.***

When analyzing PISA results by language, there are no sizeable differences by language of the school system for six of the eight bullying behaviours covered in the Student Questionnaire. However, more students from English school systems reported being picked on by other students a few times a month or more, compared to those in French school systems (11 per cent and 5 per cent, respectively). As well, 10 per cent of students in English school systems reported being left out of things on purpose by other students at least a few times a month, compared to 6 per cent in French school systems.

The literature suggests that there are gender differences for some types of bullying but not for others (UNESCO, 2019). Boys tend to be victims of physical bullying more than girls are; the opposite trend is apparent for verbal bullying (Smith, López-Castro, Robinson, & Görzig, 2019). In Canada, the PISA 2015 data show more

similarities than differences across gender among 15-year-olds. However, for six of the eight behaviours under study, more boys than girls reported being a victim at least a few times a month. This is consistent with the international averages from PISA 2015 (OECD, 2016). Figure 3 shows the percentage of Canadian students who reported being bullied at least a few times a month. Only in the category “other students left me out of things on purpose” is there no statistical difference between genders. It is also worth noting that in only one category—“other students spread nasty rumours about me”—did more girls than boys report being a victim. It should be noted that, although most differences are statistically significant, there is less than a 5 per cent difference across genders except for the statement “I got called names by other students,” where the difference between boys and girls is 9 percentage points (Figure 3).

**FIGURE 3** Gender difference in the percentage of Canadian students’ exposure at least a few times a month to each type of bullying: PISA 2015



Note: All gender differences are statistically significant except for the statement “other students left me out of things on purpose.”

In PISA, the immigration status of students is reported using three categories: non-immigrant (the student has at least one parent who was born in the country of residence), first generation (the student and parents were not born in the country of residence), and second generation (the student was born in the country of residence but their parents were not). Canada has one of the largest proportions of students with an immigration background among the countries participating in PISA, with 30 per cent of 15-year-olds being either first or second generation. Based on PISA 2015, the Index of Exposure to Bullying indicates, for almost all countries, either that there is no statistical difference between students with an immigration background (first or second generation) and non-immigrant students, or that students with an immigration background are more exposed to bullying. There are only three countries (Australia, Macao-China, and Canada) where non-immigrant students are more exposed to bullying than are immigrant students (OECD, 2016). The Canadian results are consistent with

the meta-analysis by Vitoroulis, Vaillancourt, & Brittain (2015), who concluded that immigration status alone is not sufficient to explain the prevalence of bullying in Canadian schools.

The PISA data permit bullying to be studied from the perspective of the school administration. A PISA questionnaire asked school principals the extent to which a number of student-related factors were affecting the school climate, with one of these factors being “students intimidating or bullying other students.” Responses used a four-point Likert scale (*not at all, very little, to some extent, a lot*). Based on the 2015 data, 14 per cent of Canadian students were in schools where the principals reported that learning was hindered to some extent or a lot by students intimidating or bullying other students. This measure can be tracked over time, as the same question appeared in previous cycles of PISA. In 2012 and 2009, 15 per cent of students were in schools where the principals reported that learning was hindered to the same extent, compared to 18 per cent in 2003.

***There has been little change in the proportion of Canadian Grade 8/Secondary II students who have been victims of bullying between 2013 and 2016.***

In 2015, the TIMSS assessment was administered in five provinces (Alberta, Manitoba, Ontario, Quebec, and Newfoundland and Labrador). Even though the Canadian composite is representative of these provinces only, it is interesting to note that only 5 per cent of these Grade 8/Secondary II students reported being bullied weekly. However, based on the responses of school principals, 21 per cent of Grade 8/Secondary II students were in schools where “intimidation or verbal abuse among students” was perceived as a moderate or serious problem. Based on the same data, only 1 per cent of students were in schools where principals perceived physical injury to other students to be a moderate or serious problem.

The analysis of the TIMSS data on responses from Grade 8/Secondary II students regarding the prevalence of bullying behaviours suggests very consistent patterns with the 15-year-old students surveyed in PISA. Almost 30 per cent of students reported that other students “made fun of me or called me names” once a month or more. The other most frequent behaviours were that other students “spread lies about me” and “left me out of their games or activities,” with 16 per cent of students experiencing such behaviours once a month or more. When asked specifically about cyberbullying, 3 per cent of Grade 8/Secondary II students reported that other students “posted embarrassing things about me online” once a month or more (Table 1).

**TABLE 1 Proportion of Canadian Grade 8/Secondary II students who reported being a victim of bullying behaviour: TIMSS 2015**

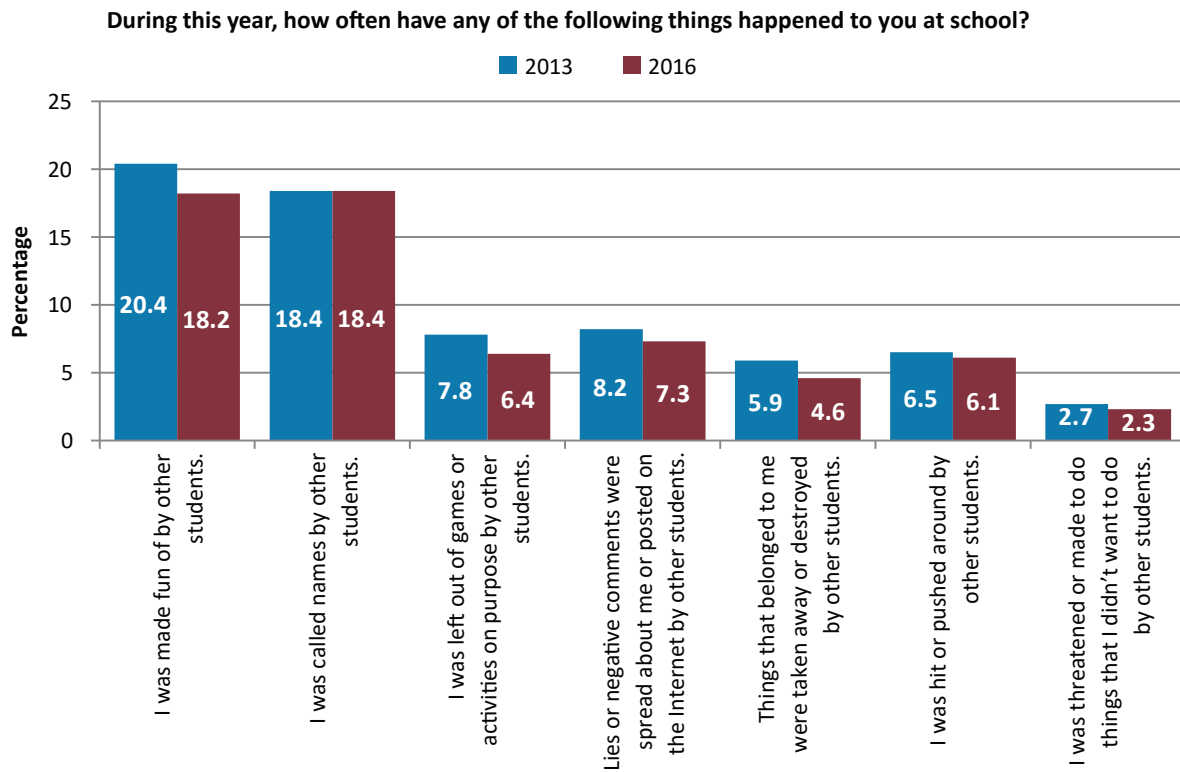
Bullying behaviour	Never	A few times a year	Once a month or more
Made fun of me or called me name	42	30	28
Left me out of their games or activities	60	24	16
Spread lies about me	56	27	16
Stole something from me	71	19	10
Hit or hurt me (e.g., shoving, hitting, kicking)	72	16	11
Made me do things I didn't want to do	79	14	6
Shared embarrassing information about me	68	22	10
Posted embarrassing things about me online	89	8	3
Threatened me	86	10	5

In 2013, PCAP was administered to a very large sample of Grade 8/Secondary II students from all provinces. Results suggest slightly lower levels of bullying compared to TIMSS 2015. For example, in TIMSS 2015, 10 per cent of Grade 8/Secondary II students reported that other students “stole something from me” once a month or more, while in PCAP 2013, 6 per cent reported that “things that belonged to me were taken away or destroyed by other students” once a month or more. Since the behaviour statements used in TIMSS and PCAP are similar, the difference between 2013 and 2015 at the

Grade 8/Secondary II level may be explained, in part, by the population coverage being much broader in PCAP than in TIMSS.

PCAP was re-administered in 2016 using the same instrument at the same grade level, thus enabling meaningful comparison with the earlier results. As can be seen in Figure 4, very little change is evident between 2013 and 2016 in the proportion of Canadian Grade 8/Secondary II students reporting being victims of bullying behaviours.

**FIGURE 4** Change over time in exposure to bullying once a month or more: PCAP 2013–2016



**Younger students report being victims of bullying more frequently than older students.**

At the Grade 4 level, the two available data sources are PIRLS 2011 and 2016 and TIMSS 2011 and 2015. As mentioned previously, PIRLS uses an approach identical to TIMSS and similar to PISA and PCAP to identify bullying, asking students to use a Likert scale to identify how often they experienced a series of eight bullying behaviours. Based on these statements, a Student Bullying Scale was computed, with an international average of 10. Values higher than 10 indicate a greater incidence of bullying behaviours than the international average. Given a Canadian average of 9.7 on this scale, it can be concluded that Canadian Grade 4 students

experienced slightly less bullying than the average of the 50 countries participating in PIRLS 2016 (Mullis et al., 2017). However, these results also indicated that Canadian Grade 4 students are more frequently victims of bullying behaviours than are older students.

Based on the PIRLS 2016 data, at least 14 per cent of Grade 4 students reported being a victim of at least one of the eight behaviours once or twice a month or more. It is disconcerting to note that the more serious form of physical bullying (being hit or hurt) was experienced by more than one in five students at least once a month.

This higher prevalence of physical bullying in younger children is consistent with previous findings (Child Trends Databank, 2016; PREVNet, n.d.). In PIRLS, the general question about students' experiences with bullying behaviours included a specific reference to cyberbullying ("including through texting or the Internet"). The 16 per cent of Canadian Grade 4 students who reported that other students "shared embarrassing information about me" at least once a month would include students who were victims of cyberbullying.

For all six provinces with sample sizes large enough for results to be reported reliably (British Columbia, Alberta, Ontario, Quebec, New Brunswick, Newfoundland and Labrador), at least a quarter of Grade 4 students reported that other students "made fun of me or called me names" or that they "left me out of their games or activities" at least once a month. Results were generally consistent across provinces for most of the eight bullying behaviours. However, more students in Ontario than in Quebec reported that other students stole something from them at least once a month (17 per cent and 8 per cent, respectively) and that other students hit or hurt them (24 per cent and 17 per cent, respectively). As was the case with 15-year-olds, only very small gender differences are evident in the proportion of students who were victims of most bullying behaviours at least once a month. However, there are statistically significant differences with respect to two behaviours: more boys than girls reported that

other students hit or hurt them and that they made fun of them or called them names (8 and 6 percentage points more, respectively).

PIRLS was also administered in 2011, which provides an opportunity to analyze results over time. Based on the Student Bullying Scale, there is no difference between 2011 and 2016 in the proportion of Canadian Grade 4 students reporting being a victim of bullying (scale scores of 9.8 and 9.7, respectively). It should be noted that the 2016 scale included two additional behaviours that were not included in 2011—"shared embarrassing information about me" and "threatened me"—and, in both cases, at least 15 per cent of Canadian Grade 4 students reported being a victim of these behaviours at least once a month in 2016 (Table 2).

In 2015, Canadian Grade 4 students also participated in the TIMSS assessment. The Student Bullying Scale for that assessment was identical to that for PIRLS 2016, enabling group comparison between 2015 and 2016. The scale score of 9.7 for TIMSS 2015 is the same as that for PIRLS 2016. Moreover, with 17 per cent of Canadian Grade 4 students reporting being bullied weekly, based on TIMSS 2015, the occurrence of bullying at Grade 4 has not changed significantly between 2015 and 2016, based on TIMSS and PIRLS data (Mullis et al., 2016, 2017).

**TABLE 2** Percentage of Canadian Grade 4 students who reported being a victim of bullying behaviours: PIRLS 2016

Bullying behaviour	Never	A few times a year	Once a month or more
Made fun of me or called me names	45	28	28
Left me out of their games or activities	42	28	30
Spread lies about me	55	23	22
Stole something from me	65	21	14
Hit or hurt me (e.g., shoving, hitting, kicking)	52	26	22
Made me do things I didn't want to do	62	20	17
Shared embarrassing information about me	64	20	16
Threatened me	68	17	15

## Implications

Overall, the Canadian data from the large-scale assessments suggest that bullying is still a serious problem affecting the lives of many students at all grade levels, but that the situation is slowly improving (UNESCO, 2019). Bullying is more prevalent in the early grades and diminishes in the middle and senior years, a finding consistent with

past research. Although data on cyberbullying are still relatively scarce, that behaviour appears to be more serious in the senior years. There are relatively small differences by gender, language of the school system, and immigration status in the proportion of students being bullied in Canada, which suggests that anti-bullying

initiatives may be more effective as a whole-school approach rather than for targeting specific sub-groups. Although all Canadian jurisdictions have implemented specific measures to address bullying in schools, results by province indicate that Quebec may have been more successful in limiting the occurrence of bullying behaviours through the implementation of system-wide anti-bullying approaches.<sup>1</sup> In terms of international anti-bullying programs, the Finnish KiVa™ program has been documented as a successful best-practice intervention initiative that attempts to change the response of peers from tending to join in, laugh at, or passively observe an aggression to becoming defenders and supporters of the victim (Eades, 2012; KiVa International, 2018; Public Health Agency of Canada, 2016; Salmivalli, Kärnä, & Poskiparta, 2011; Yang & Salmivalli, 2015). Such whole-school/community approaches may help reduce the damaging impact that bullying has on too many students.

In its latest global report on bullying (UNESCO, 2019), the United Nations Educational, Scientific and Cultural Organization has identified a number of factors contributing to a reduction in school violence or bullying over time. Six of these factors may be of particular interest for educational authorities in Canada:

- ❖ demonstrating strong political leadership and a robust legal and policy framework to address school violence
- ❖ collaboration between educators and a wide range of partners, including in the justice and social sectors
- ❖ implementation of school programs that are based on effective practices (such the KiVa program mentioned above)
- ❖ availability of data at the school level and systematic monitoring mechanisms
- ❖ training for teachers on bullying and on effective classroom management
- ❖ development and implementation of a safe and positive learning environment policy at the school level

<sup>1</sup> See “Fighting Bullying and Violence in the Schools” on the Éducation et Enseignement supérieur website, at <http://www.education.gouv.qc.ca/en/current-initiatives/bullying-and-violence-in-the-schools/>

**For more information on anti-bullying initiatives from school systems across Canada, please consult the following websites:**

*British Columbia:* <https://www2.gov.bc.ca/gov/content/erase>

*Alberta:* <http://www.humanservices.alberta.ca/abuse-bullying/bullying-get-help.html>

*Saskatchewan:* <http://www.saskatchewan.ca/residents/education-and-learning/anti-bullying>

*Manitoba:* [https://www.edu.gov.mb.ca/k12/safe\\_schools/index.html](https://www.edu.gov.mb.ca/k12/safe_schools/index.html)

*Ontario:* <https://www.ontario.ca/page/bullying-we-can-all-help-stop-it>

*Quebec:* <http://www.education.gouv.qc.ca/en/current-initiatives/bullying-and-violence-in-the-schools/>

*New Brunswick:* <https://www2.gnb.ca/content/gnb/en/departments/education/k12/content/rdi.html>

*Nova Scotia:* <http://antibullying.novascotia.ca/>

*Prince Edward Island:* <https://www.princeedwardisland.ca/en/information/education-early-learning-and-culture/student-well-being-teams>

*Newfoundland and Labrador:* <https://www.ed.gov.nl.ca/edu/k12/bullying/index.html>

*Yukon:* [http://www.education.gov.yk.ca/pdf/policies/safe\\_caring\\_schools.pdf](http://www.education.gov.yk.ca/pdf/policies/safe_caring_schools.pdf)

*Nunavut:* <https://www.gov.nu.ca/health/information/bullying>

*Northwest Territories:* <https://www.ece.gov.nt.ca/en/services/stop-bullying-nwt>

**You may also find useful information on the following websites:**

<https://www.prevnet.ca/>

<https://helpmychild.ca/>

<https://www.redcross.ca/how-we-help/violence-bullying-and-abuse-prevention>

<http://mediasmarts.ca/category/categories/cyberbullying>

<https://www.canada.ca/en/public-health/services/health-promotion/childhood-adolescence/parent/parenting-resources-support/welcome-parenting/bullying-coping-old-problem.html>

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