



## WHAT IS THE POTENTIAL FOR BOYS TO CATCH UP TO GIRLS IN READING? RESULTS FROM PISA 2009

Since the inception of the Programme for International Student Assessment (PISA) in 2000, Canada has always been a top performer in reading. Although Canadian students are still listed among the best readers in the world, a significant gender gap persists, with girls consistently scoring ahead of boys (OECD, 2010a). The gender difference in PISA reading scores has varied from 32 points in 2000 to 34 points in 2009. This 34-point difference is roughly equivalent to half a PISA reading-proficiency level, or one full year of formal schooling. A gap of this magnitude cannot be ignored — a deeper understanding of its contributing factors is called for in order to identify effective teaching and learning strategies for Canadian boys.

### Gender gap and age

It is important to note that the gender gap in reading varies according to age. Studies of reading proficiency carried out by the US National Assessment of Educational Progress (NAEP) across grade levels (4, 8, and 12) and across several years of assessment (1992, 1994, 1998, 2000, 2002, and 2003) showed that the gender gap gets larger as the grade level increases (Klecker, 2006). These results are in line with national and international assessments in Canada:

- The latest cycle of the Progress in International Literacy Study (PIRLS), which assessed Grade 4 students in 2011, showed a gender difference in reading of 12 points (Labrecque, Chuy, Brochu, & Houme, 2012).
- The Pan-Canadian Assessment Program (PCAP), which was administered to Grade 8 students in 2010, showed a gender difference in reading of 26 points (CMEC, 2011).
- PISA, which assessed 15-year-old students in 2009, showed a gender difference in reading of 34 points (Brochu, Gluszynski, & Cartwright, 2011).

In all assessments, the mean score was set at 500 and standard deviation at 100.

This brief synopsis summarizes results published in *PISA 2009: Explaining the Gender Gap in Reading through Reading Engagement and Approaches to Learning* (Chuy & Nitulescu, 2013), and extends these results to the provincial level. Two sets of socio-cognitive factors contributing to the gender gap in Canada are considered, namely:

- *Engagement in reading activities* – The role of reading engagement has been widely documented in the education literature over the last two decades (Safford, O’Sullivan, & Barrs, 2004; Clark & Trafford, 1995; OFSTED, 2003). It is usually considered an even stronger predictor of reading achievement than socioeconomic status is (OECD,

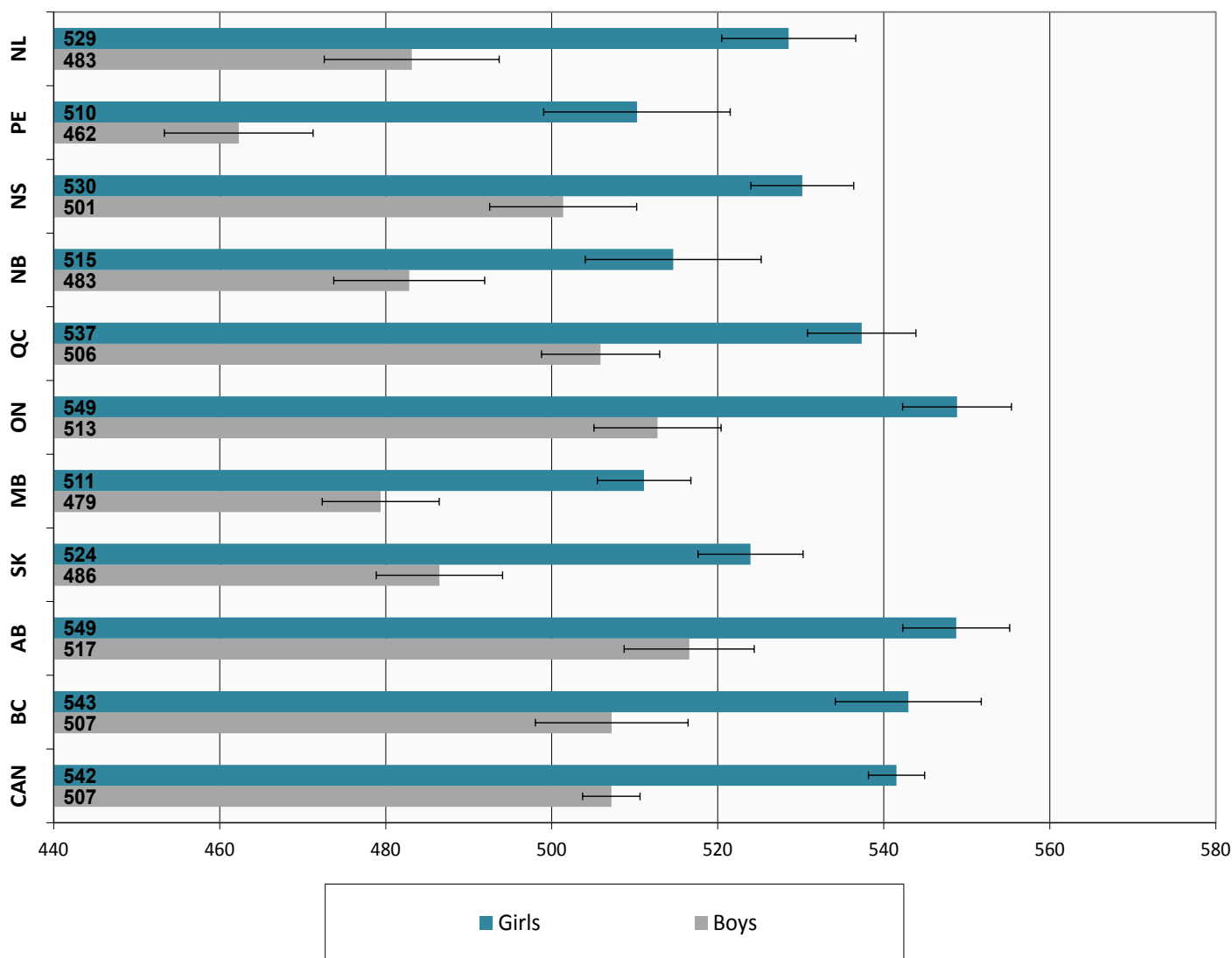
2002). Research shows that when girls and boys have similar levels of reading engagement, they attain similar levels of reading achievement (Topping, Samuels, and Paul, 2008).

- *Approaches to learning, including cognitive strategies and meta-cognitive strategies* – Cognitive reading strategies relate to the application of specific techniques that facilitate comprehension and generally involve direct interaction with the text. Meta-cognitive strategies are defined as “thinking about thinking” and play the role of self-regulator. Research reveals that girls use a wider range of strategies, show greater awareness of strategic meta-knowledge, and are more flexible readers (Griva, Alevriadou & Semoglou, 2010). Boys, on the other hand, are better at information retrieval and will sacrifice depth of understanding for correct answers and speed (Smith & Wilhelm, 2002).

### *Reading results for Canada and Canadian provinces: girls outperformed boys*

PISA 2009 results showed that girls outperformed boys in reading literacy in every participating country. Among OECD countries, where the average reading score was 493 points, the gender gap was 39 points in favour of girls. In Canada, where the average reading score was 524 points, the gap was slightly lower at 34 points (or one-third of a standard deviation). Chart 1 shows significant gender differences across Canada, ranging from 29 points in Nova Scotia to 48 points in Prince Edward Island.

**CHART 1** Comparison of results in reading, by gender



## Results for engagement in reading in Canada: girls read more diversely and generally enjoyed reading to a greater extent than boys did

Three indices of engagement in reading activities were calculated in PISA 2009: *enjoyment of reading*,<sup>1</sup> *diversity in reading*,<sup>2</sup> and *on-line reading activity*.<sup>3</sup> All indices had mean values of 0 and standard deviations of 1 at the OECD level, with positive values indicating greater engagement in reading.<sup>4</sup>

Results show that Canadian 15-year-old boys and girls exhibit statistically significant differences in their engagement in reading. More specifically, Canadian girls, on average, enjoyed reading to a far greater extent than the OECD average, while Canadian boys were below the OECD average for all three engagement indices.

Analysis of male–female differences in Canada overall shows that girls reported statistically higher indices than boys for reading diversity and reading enjoyment. (The female advantage was particularly large in reading enjoyment, reaching almost one full standard deviation in several provinces). However, both genders were equally engaged in on-line reading activities. Table 1 summarizes the results for Canada and Canadian provinces.

**TABLE 1** Indices for engagement in reading activities, by gender

	Enjoyment of reading			Diversity in reading			On-line reading		
	Male	Female	Difference	Male	Female	Difference	Male	Female	Difference
NL	-0.56	0.42	<b>-0.97</b>	-0.85	-0.32	<b>-0.53</b>	-0.08	0.04	<b>-0.13</b>
PE	-0.33	0.73	<b>-1.06</b>	-0.27	0.11	<b>-0.38</b>	-0.27	-0.10	<b>-0.17</b>
NS	-0.27	0.66	<b>-0.93</b>	-0.34	-0.01	<b>-0.34</b>	-0.03	-0.06	0.03
NB	-0.32	0.50	<b>-0.82</b>	-0.32	-0.10	<b>-0.23</b>	-0.17	-0.09	-0.08
QC	-0.29	0.47	<b>-0.76</b>	-0.31	-0.14	<b>-0.17</b>	-0.29	-0.26	-0.03
ON	-0.31	0.62	<b>-0.93</b>	-0.22	0.09	<b>-0.31</b>	0.12	0.12	0.00
MB	-0.31	0.39	<b>-0.70</b>	-0.28	0.05	<b>-0.34</b>	-0.17	-0.22	0.05
SK	-0.39	0.38	<b>-0.76</b>	-0.17	0.02	<b>-0.19</b>	-0.33	-0.34	0.01
AB	-0.21	0.51	<b>-0.71</b>	-0.18	0.01	<b>-0.19</b>	-0.07	-0.12	0.05
BC	-0.18	0.55	<b>-0.72</b>	-0.08	0.10	<b>-0.18</b>	0.10	0.06	0.04
CAN	-0.28	0.55	<b>-0.83</b>	-0.24	0.01	<b>-0.25</b>	-0.03	-0.04	0.00

**Note:** Bold figures are statistically significant at .05 probability level.

<sup>1</sup> The level of *enjoyment of reading* was calculated by asking students the extent of their agreement with the following 11 statements: “I read only if I have to”; “Reading is one of my favourite hobbies”; “I like talking about books with other people”; “I find it hard to finish books”; “I feel happy if I receive a book as a present”; “For me, reading is a waste of time”; “I enjoy going to a bookstore or a library”; “I read only to get information that I need”; “I cannot sit still and read for more than a few minutes”; “I like to express my opinions about books I have read”; and “I like to exchange books with my friends.”

<sup>2</sup> The level of *diversity in reading* was calculated by asking students how frequently they read different types of reading materials, including: magazines, comic books, fiction books, non-fiction books, and newspapers.

<sup>3</sup> *On-line reading* was measured by asking students how often they engaged in a number of activities, e.g., reading e-mail, chatting on-line, reading on-line news, or using an on-line dictionary or encyclopedia.

<sup>4</sup> With the OECD mean set at 0, any positive Canadian index could be considered above the OECD average, while any negative one could be considered below it.

## Cognitive strategies: girls used control and memorization strategies more often than boys did

In PISA 2009, approaches to learning were measured through a series of questions related to cognitive and meta-cognitive strategies. The main difference between these two categories was that the first one (cognitive) focused on the *frequency* of strategy use, and the second one (meta-cognitive) on students' *awareness* of strategy usefulness. Three indices were calculated for cognitive strategies: *memorization*,<sup>5</sup> *elaboration*,<sup>6</sup> and *control*.<sup>7</sup>

Analysis of results show significant gender differences in the use of *memorization* and *control* strategies, with boys scoring below the OECD average and girls above it in most provinces. As to the *elaboration* index, students of both genders were below the OECD average, but boys scored significantly higher than girls in Canada overall. Table 2 summarizes the results for Canada and Canadian provinces.

**TABLE 2** Indices for cognitive strategies, by gender

	Memorization			Elaboration			Control		
	Male	Female	Difference	Male	Female	Difference	Male	Female	Difference
NL	-0.05	0.36	<b>-0.41</b>	-0.17	-0.28	0.11	-0.14	0.42	<b>-0.56</b>
PE	-0.19	0.31	<b>-0.50</b>	-0.23	-0.20	-0.03	-0.29	0.29	<b>-0.59</b>
NS	-0.20	0.23	<b>-0.43</b>	-0.15	-0.14	-0.01	-0.19	0.33	<b>-0.51</b>
NB	-0.20	0.26	<b>-0.46</b>	-0.20	-0.15	-0.05	-0.25	0.20	<b>-0.45</b>
QC	-0.19	0.09	<b>-0.28</b>	-0.21	-0.37	<b>0.16</b>	-0.14	0.28	<b>-0.42</b>
ON	-0.10	0.19	<b>-0.29</b>	-0.15	-0.22	0.07	-0.04	0.37	<b>-0.40</b>
MB	-0.22	0.16	<b>-0.38</b>	-0.20	-0.28	0.07	-0.20	0.17	<b>-0.38</b>
SK	-0.13	0.19	<b>-0.32</b>	-0.27	-0.34	0.06	-0.24	0.16	<b>-0.40</b>
AB	-0.25	-0.05	<b>-0.20</b>	-0.08	-0.19	<b>0.11</b>	-0.08	0.24	<b>-0.32</b>
BC	-0.22	-0.05	<b>-0.16</b>	-0.12	-0.19	0.06	-0.05	0.23	<b>-0.28</b>
CAN	-0.16	0.12	<b>-0.28</b>	-0.16	-0.25	<b>0.09</b>	-0.09	0.30	<b>-0.39</b>

**Note:** Bold figures are statistically significant at .05 probability level.

<sup>5</sup> The index of *memorization* was derived from the frequency with which students reported that they: try to memorize everything that is covered in the text; try to memorize as many details as possible; read the text so many times that they can recite it; and read the text over and over again.

<sup>6</sup> The index of *elaboration* was derived from the frequency with which students reported that they: try to relate new information to prior knowledge acquired in other subjects; figure out how the information might be useful outside school; try to understand the material better by relating it to personal experiences; and figure out how the text information fits in with what happens in real life.

<sup>7</sup> The index of *control* strategies was derived from the frequency with which students reported that they: figure out what exactly they need to learn; check if they understood what they have read; figure out which concepts they still have not really understood; make sure that they remember the most important points of the text; and look up additional information to clarify something they did not understand.

## *Meta-cognitive strategies: girls were more aware of the most effective meta-cognitive strategies than boys were*

PISA assessment of meta-cognitive strategies focused on students' awareness of different strategies' usefulness. Two indices were considered: the index of *understanding and remembering*,<sup>8</sup> and the index of *summarizing*.<sup>9</sup>

Results show that Canadian girls had statistically significant advantages over boys in both meta-cognition indices, with girls being above the OECD average and boys below it. The girls' advantage was particularly large for the index of summarizing strategies. Of note is the fact that provinces whose indices of meta-cognitive strategies for girls were lower than the OECD average (i.e., below zero) also showed reading results that were below the Canadian average. Table 3 summarizes the results for Canada and Canadian provinces.

**TABLE 3** Indices for meta-cognitive strategies, by gender

	Understanding and Remembering			Summarizing		
	Male	Female	Difference	Male	Female	Difference
NL	-0.24	0.09	<b>-0.33</b>	-0.45	-0.06	<b>-0.40</b>
PE	-0.57	-0.14	<b>-0.43</b>	-0.58	-0.12	<b>-0.46</b>
NS	-0.32	-0.06	<b>-0.27</b>	-0.34	0.12	<b>-0.47</b>
NB	-0.34	-0.04	<b>-0.30</b>	-0.33	0.07	<b>-0.40</b>
QC	0.21	0.49	<b>-0.28</b>	0.13	0.44	<b>-0.31</b>
ON	-0.30	0.00	<b>-0.31</b>	-0.24	0.24	<b>-0.48</b>
MB	-0.37	-0.11	<b>-0.26</b>	-0.43	-0.07	<b>-0.36</b>
SK	-0.37	-0.08	<b>-0.30</b>	-0.48	0.01	<b>-0.49</b>
AB	-0.18	0.06	<b>-0.24</b>	-0.27	0.10	<b>-0.37</b>
BC	-0.21	0.04	<b>-0.25</b>	-0.26	0.19	<b>-0.45</b>
CAN	-0.17	0.12	<b>-0.29</b>	-0.19	0.24	<b>-0.43</b>

**Note:** Bold figures are statistically significant at .05 probability level.

## *Looking beyond enjoyment of reading to explain the gender gap in reading*

As stated in the PISA 2009 international report (OECD, 2010b), the enjoyment of reading has a very strong relationship to reading performance. It is estimated that if Canadian boys enjoyed reading as much as girls do, their reading score would increase by 29 points. However, when considering this estimate, the influence of reading enjoyment on student performance cannot be interpreted univocally: we still do not know whether children read better because they enjoy reading more, or whether they enjoy reading more because their reading skills are better. Thus, the contribution of other factors, such as reading strategies, should be better elucidated.

<sup>8</sup> The index of *understanding and remembering* was calculated by asking students to report on how useful they find the following strategies: "I concentrate on the parts of the text that are easy to understand"; "I quickly read through the text twice"; "After reading the text, I discuss its content with other people"; "I underline important parts of the text"; "I summarize the text in my own words"; and "I read the text aloud to another person."

<sup>9</sup> The index of *summarizing* was calculated by asking students to describe how useful they find the following strategies: "I write a summary. Then I check that each paragraph is covered in the summary, because the content of each paragraph should be included"; "I try to copy out accurately as many sentences as possible"; "Before writing the summary, I read the text as many times as possible"; "I carefully check whether the most important facts in the text are presented in the summary"; and "I read through the text, underlining the most important sentences, then I write them in my own words as a summary."

## Oaxaca-Blinder decomposition: potential for closing the gender gap

In order to measure the *potential* for boys to *catch up* to girls through different reading strategies, the Oaxaca-Blinder decomposition (Jann, 2008) was applied to several regression models. This decomposition method involves manipulating marginal effects from group regression models in order to separate *explainable* from *unexplainable* effects. Explainable effects are those that have been determined (by the decomposition) to be due to boys having different *endowments* than girls. For example, if girls are more aware than boys of proper summarizing techniques, then we can say that girls have been *endowed* with better summarizing skills than boys. Unexplainable effects are those determined to be due to boys and girls being *unequally affected* by an equal level of endowments. Although such effects are very difficult to explain, the decomposition can measure it.

Table 4 presents the results of an Oaxaca-Blinder decomposition, with eight factors related to different reading strategies and five controls (i.e., students' socioeconomic backgrounds, whether students are first- or second-generation immigrants, the language that students speak at home, and whether they go to school in an urban or rural area). The factor of reading enjoyment was deliberately omitted in this model. Only *explained* contributions are reported here.<sup>10</sup>

**TABLE 4 Results of the Oaxaca-Blinder decomposition**

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	CAN
<b>Summary coefficients</b>											
Difference*	<b>42.62</b>	<b>42.81</b>	<b>25.20</b>	<b>33.29</b>	<b>27.75</b>	<b>31.76</b>	<b>26.66</b>	<b>37.15</b>	<b>31.47</b>	<b>32.31</b>	<b>31.03</b>
Explained portion	<b>15.22</b>	<b>27.54</b>	<b>14.91</b>	<b>15.05</b>	<b>16.04</b>	<b>18.81</b>	<b>15.76</b>	<b>22.18</b>	<b>15.79</b>	<b>19.38</b>	<b>17.42</b>
Unexplained portion	<b>27.39</b>	<b>15.26</b>	<b>10.29</b>	<b>18.24</b>	<b>11.71</b>	<b>12.94</b>	<b>10.90</b>	<b>14.97</b>	<b>15.69</b>	<b>12.93</b>	<b>13.61</b>
<b>Explained contributions</b>											
Understand and remember	2.05	<b>5.28</b>	<b>3.30</b>	<b>3.55</b>	<b>3.30</b>	<b>3.05</b>	<b>2.93</b>	<b>2.72</b>	<b>3.15</b>	<b>2.33</b>	<b>2.85</b>
Summarize	<b>7.38</b>	<b>10.73</b>	<b>8.02</b>	<b>8.98</b>	<b>5.50</b>	<b>9.44</b>	<b>7.59</b>	<b>9.97</b>	<b>9.01</b>	<b>12.33</b>	<b>8.75</b>
Control	<b>8.51</b>	<b>13.16</b>	<b>8.90</b>	<b>10.83</b>	<b>8.48</b>	<b>8.81</b>	<b>9.66</b>	<b>11.68</b>	<b>7.23</b>	<b>6.28</b>	<b>8.61</b>
Memorize	<b>-3.72</b>	-2.13	<b>-3.76</b>	<b>-6.39</b>	<b>-2.24</b>	<b>-2.96</b>	<b>-2.84</b>	<b>-2.51</b>	<b>-3.25</b>	<b>-1.90</b>	<b>-3.00</b>
Elaborate	0.42	-0.29	0.06	-0.25	<b>1.45</b>	0.46	1.15	0.68	<b>0.82</b>	0.25	<b>0.66</b>
Socioeconomic status	-0.43	0.33	-1.63	-0.48	-1.05	-0.31	-2.54	0.29	-0.67	-0.52	-0.71
2 <sup>nd</sup> -generation immigrant	0.01	-0.49	-0.08	0.00	0.13	0.05	0.24	-0.16	-0.46	0.00	0.00
1 <sup>st</sup> -generation immigrant	-0.13	-0.41	-0.18	0.21	0.26	0.02	-0.19	0.07	0.01	0.21	0.04
Home language	0.24	1.06	0.52	<b>-1.28</b>	0.19	0.38	-0.23	-0.28	0.01	0.56	<b>0.28</b>
Urban	0.89	0.30	-0.23	-0.12	0.00	-0.12	-0.02	-0.29	-0.08	-0.16	-0.06

**Note:** Bold figures are statistically significant at .05 probability level.

\* The gender differences are different from the true ones, since the addition of explanatory variables distorts the gap's measurement.

As shown in the "summary coefficients" section of the table, over half of the gender gap in Canada can be explained by different reading strategies (explained portion was 17 points out of a difference of 31 points for Canada overall).<sup>11</sup> Thus, if Canadian boys and girls were equal in terms of their approaches to learning, boys could *potentially catch up* to girls by 17 points in reading. At the provincial level, the largest explained portion was observed in Prince Edward

<sup>10</sup> For *unexplained* contributions, please refer to Chuy & Nitulescu (2013). Full paper available at [http://www.cmec.ca/Publications/Lists/Publications/Attachments/302/PISA2009\\_Research\\_CMEC\\_HRSDC\\_EN.pdf](http://www.cmec.ca/Publications/Lists/Publications/Attachments/302/PISA2009_Research_CMEC_HRSDC_EN.pdf)

<sup>11</sup> The significant *unexplained* portion reflects the fact that the enjoyment-of-reading factor was omitted from the model.

Island (28 points out of a difference of 43 points) and the smallest in Newfoundland and Labrador (15 points out of a difference of 43 points).

The coefficient of each particular factor is presented in the “explained contributions” section of the table. In Canada overall, all coefficients of reading strategies were significant. Two factors showed the most important contributions: *control* and *summarizing*. Each of them explained about nine points of gender difference in reading. Another meta-cognitive strategy with a significant but less powerful contribution was *understanding and remembering* (three points explained). The *elaboration* strategy explained very little of the gender gap in reading scores (less than one point explained). Finally, the result of the *memorization* strategy must be interpreted in the opposite way since it is negative. This implies that girls were, in a sense, penalized for relying on memorization as an approach to studying. Thus, if both boys and girls were equally relying on memorization strategies, the gender gap in reading would actually *expand* (by three points).

At the provincial level, results are quite consistent across jurisdictions, mirroring those for Canada overall. The following results should be noted:

- The *control* factor shows the highest coefficient in Prince Edward Island (13 points explained out of a difference of 43 points), meaning that bringing boys and girls to the same level of control skills would potentially reduce the gender gap by one-quarter in that province.
- The *summarizing* factor shows the highest coefficient in British Columbia (12 points explained out of a difference of 32 points), meaning that bringing boys and girls to the same level of summarizing skills would potentially reduce the gender gap by one-third in that province.
- The *memorization* factor shows the greatest negative coefficient in New Brunswick (six points negatively explained out of a difference of 33 points), meaning that if girls did not employ this technique as frequently, their reading performance would be even higher.

All coefficients of reading strategies were calculated after controlling for student socioeconomic background, immigrant background, home language, and school area (urban/rural).

## Conclusion

What enables girls to outperform boys? Why do inequalities persist despite educational systems’ continuous efforts to eliminate them? Is there anything that girls do differently from boys that makes them successful in reading? These are some of the questions this brief synopsis has tried to answer.

Results of PISA 2009 show that girls (i) read more diversely and generally enjoyed reading to a greater extent, (ii) used control and memorization strategies more often, and (iii) were more aware than boys of the most effective meta-cognition strategies. Oaxaca and Blinder’s decomposition revealed that, besides enjoyment of reading, two reading strategies contributed significantly to the gender differences in reading: *control* and *summarizing*. *Control* is a cognitive strategy focusing on understanding a task’s purpose and its main concepts, while *summarizing* is a meta-cognitive strategy reflecting an awareness of the most efficient ways to condense information. Girls outperformed boys in the use of these important reading strategies.

PISA also revealed an interesting result regarding *memorization*, a cognitive strategy derived from the frequency with which students try to memorize the text (without special focus on understanding). It appears that *memorization*, being more frequently used by girls, has a negative effect on reading scores. Thus, if girls did not employ this technique as frequently, their reading performance would be even higher.

Obviously, all students, including boys or those with reading difficulties, would benefit if teachers modelled the most effective reading strategies and explained to them when and how they should be used (Saskatchewan Learning, 2004). However, this is not only the responsibility of language-arts teachers but of all educators, as these skills can be applied across the curriculum. Parents can also play an important role. As PISA showed, students whose parents read to them when they were young developed a greater sense of reading enjoyment than those who did not have this opportunity (OECD, 2012). Parents could also help children develop reading skills early in their lives by offering them plenty of opportunities to reflect on their reading experiences.

Further results are available in:

***PISA 2009: Explaining the Gender Gap in Reading through Reading Engagement and Approaches to Learning***

[http://www.cmec.ca/Publications/Lists/Publications/Attachments/302/PISA2009\\_Research\\_CMEC\\_HRSDC\\_EN.pdf](http://www.cmec.ca/Publications/Lists/Publications/Attachments/302/PISA2009_Research_CMEC_HRSDC_EN.pdf)

## References

- Brochu, P., Gluszynski, T., & Cartwright, F. (2011). *Second report from the 2009 Programme for International Student Assessment*. Toronto: Council of Ministers of Education, Canada (CMEC).
- Chuy, M., & Nitulescu, R. (2013). *PISA 2009: Explaining the gender gap in reading through reading engagement and approaches to learning*. Research paper. Toronto: Council of Ministers of Education, Canada (CMEC) and Human Resources and Skills Development Canada (HRSDC).
- Clark, A., & Trafford, J. (1995). Boys into modern languages: An investigation of the discrepancy in attitudes and performance between boys and girls in modern languages. *Gender and Education*, 7(3), 315–325.
- Council of Ministers of Education, Canada. (2011). *PCAP-2010: Report on the pan-Canadian assessment of mathematics, science, and reading*. Toronto: Author.
- Griva, E., Alevriadou, A., & Semoglou, K. (2010). Identifying gender differences in reading preferences and strategies employed by Greek students: A socio-cognitive perspective. In the unpublished proceedings of the UNESCO/ University of Cyprus international conference, “Mapping the Gender Equality: Research and practices – The national and international perspective.” October 22–23, 2010, Nicosia, Cyprus.
- Jann, B. (2008). A Stata implementation of the Blinder-Oaxaca decomposition. *The Stata Journal*, 8(4), 453–479. Retrieved from [http://www.ssc.wisc.edu/~jmuniz/jann\\_oaxaca.pdf](http://www.ssc.wisc.edu/~jmuniz/jann_oaxaca.pdf)
- Klecker, B.M. (2006). The gender gap in NAEP fourth-, eighth-, and twelfth-grade reading scores across years. *Reading Improvement*, 43(1), 50-56. Retrieved from <http://eric.ed.gov/?id=EJ765503>
- Labrecque, M., Chuy, M., Brochu, P., Houme, K. (2012). *PIRLS 2011 Canada in context: Canadian results from the Progress in International Reading Literacy Study*. Toronto: Council of Ministers of Education, Canada (CMEC).
- OECD. (2002). *Reading for change: Performance and engagement across countries: Results from PISA 2000*. Paris: Author.
- OECD. (2010a). *PISA 2009 results: What students know and can do – Student performance in reading, mathematics and science* (Vol. 1). Paris: Author.
- OECD. (2010b). *PISA 2009 results: Learning to learn – Student engagement, strategies and practices* (Vol. 3). Paris: Author.



- OECD. (2012). *Let's read them a story! The parent factor in education*. Paris: Author.
- OFSTED. (2003). *Yes he can: Schools where boys write well*. London: Author.
- Safford, K., O'Sullivan, O., & Barrs, M. (2004). *Boys on the margin: Promoting boys' literacy and learning at key stage 2*. London, UK: Centre for Literacy in Primary Education.
- Saskatchewan Learning. (2004). *Teaching students with reading difficulties and disabilities: A guide for educators*. Retrieved from <http://www.education.gov.sk.ca/reading-difficulties-disabilities>
- Smith, M.W. & Wilhelm, J.D. (2002). *Reading don't fix no chevys: Literacy in the lives of young men*. Portsmouth, NH: Heinemann.
- Topping, K.J., Samuels, J., & Paul, T. (2008). Independent reading: The relationship of challenge, non-fiction and achievement. *British Educational Research Journal*, 34, 505–524.