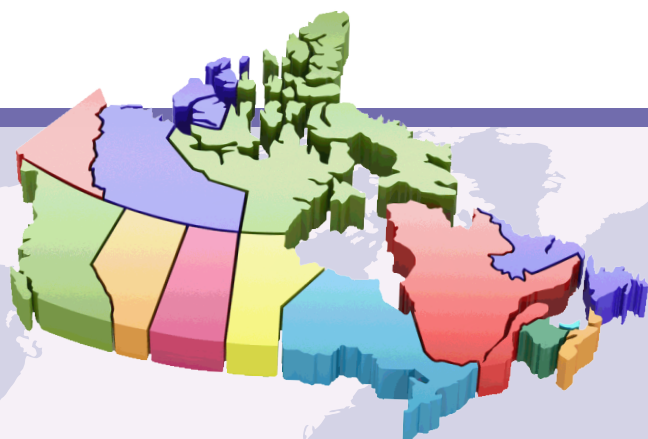


Measuring up: Canadian Results of the OECD PISA 2018 Study

The Performance of Canadian 15-Year-Olds in Global Competence

Highlights



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Canada

What is PISA?

The Program for International Student Assessment (PISA) is a collaborative effort among member countries of the Organisation for Economic Co-operation and Development (OECD). It is designed to provide policy-oriented international indicators of the skills and knowledge of 15-year-old students and to shed light on a range of factors that contribute to successful students, schools, education systems, and learning environments. It measures skills that are generally recognized as key outcomes of the educational process. The assessment does not focus on whether students can reproduce knowledge but rather on young people's ability to use their knowledge and skills to meet real-life challenges. These skills are believed to be prerequisites for efficient learning in adulthood and for full participation in society.

PISA has been conducted every three years since 2000. The study measures achievement in the core subject areas of reading, mathematics, and science, as well as in an innovative domain — in 2018, this innovative domain was global competence. Seventy-nine countries and economies participated in the assessment of PISA's core domains of reading, mathematics, and science, while 27 countries and economies took part in the global competence domain.

In the context of PISA, global competence is defined as “a multidimensional capacity that encompasses the ability to examine global and intercultural issues, understand and appreciate different perspectives and viewpoints, interact successfully and respectfully with others, and take action for collective well-being and sustainable development.”¹ (The dimensions of this definition are listed in Table 1.) The PISA 2018 global competence assessment was designed with a cognitive test as well as background questionnaires. While both the cognitive test and student questionnaire were used to assess knowledge and cognitive skills, social skills and attitudes were assessed only through the questionnaire.

The PISA 2018 global competence assessment focused on the construct of “global understanding.” This construct is defined as “the combination of background knowledge and cognitive skills required to solve problems related to global and intercultural issues.”² Global understanding was assessed through two knowledge categories and four cognitive skills or process categories, as shown in Table 1. Within these dimensions and categories, the global competence assessment examined a variety of constructs using questionnaires completed by students and school principals.

Table 1 Dimensions of global competence and the cognitive test of global understanding

Dimensions of global competence
<ul style="list-style-type: none">✓ Examine issues of local, global, and intercultural significance✓ Understand and appreciate the perspectives and worldviews of others✓ Engage in open, appropriate, and effective interactions across cultures✓ Take action for collective well-being and sustainable development
PISA cognitive test of global understanding
Knowledge categories
<ul style="list-style-type: none">✓ Knowledge of global issues✓ Intercultural knowledge
Cognitive skills or process categories
<ul style="list-style-type: none">✓ Evaluate information, formulate arguments, and explain complex situations or problems✓ Identify and analyze multiple perspectives✓ Understand differences in communication✓ Evaluate actions and consequences

The Canadian report provides information on the performance of 15-year-old students on the assessment of global competence as well as on six student questionnaire constructs: awareness of global issues; self-efficacy regarding global issues; respect for people from other cultures; interest in learning about other cultures; attitudes toward equal rights for immigrants; and sense of agency with respect to global issues.

¹ OECD, *PISA 2018 (Volume VII): Are students ready to thrive in an interconnected world?* (Paris: OECD Publishing, 2020), p. 3.

² OECD, *PISA 2018 assessment and analytical framework* (Paris: OECD Publishing, 2019), p. 180.

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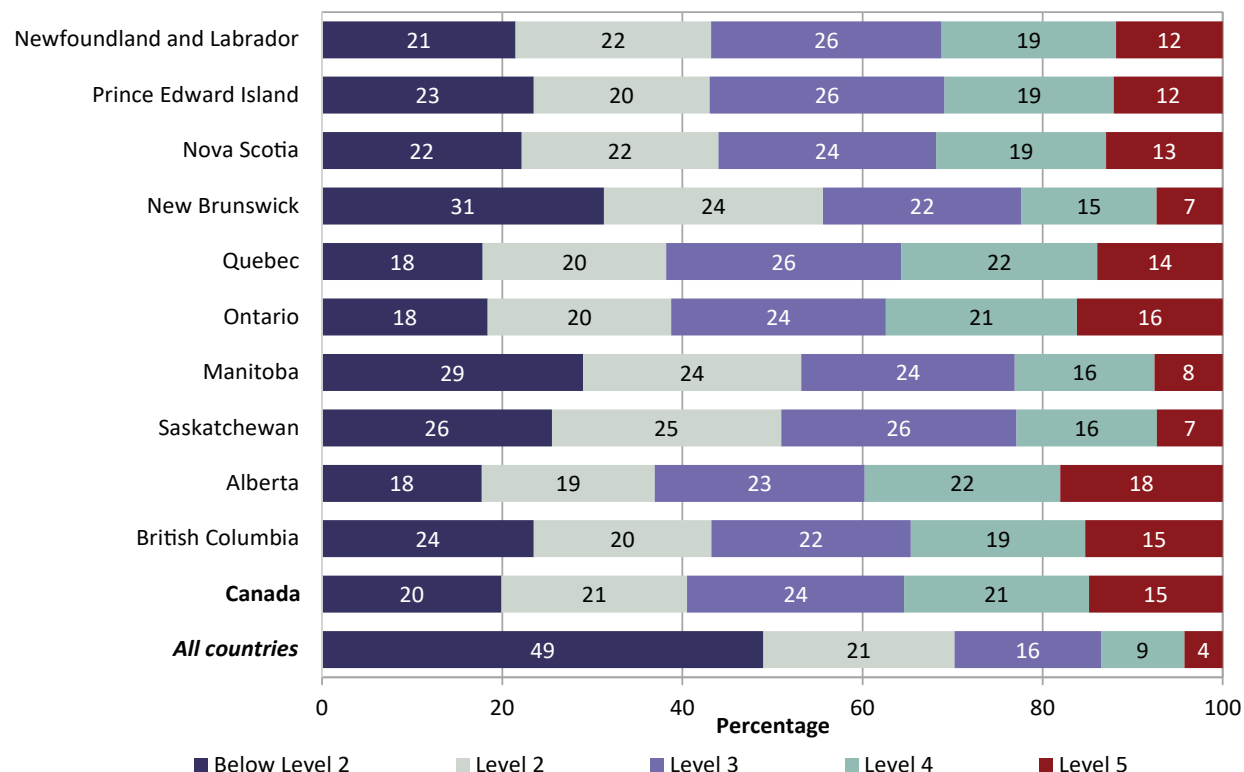


As young people learn to participate and thrive in a more interconnected world, they can benefit from understanding cultural differences and developing an intercultural outlook. The PISA global competence framework presents four reasons why students need intercultural and global skills: to live harmoniously in multicultural societies; to thrive in a changing labour market; to use media platforms effectively and responsibly; and to support the United Nations Sustainable Development Goals.³ These reasons are grounded in the changing social, economic, and technological realities that impact the ways students interact with each other and prepare for their futures.

Results in global competence

In PISA 2018, 80 percent of Canadian students and 51 percent of students in all participating countries performed at or above Level 2 in global competence, which is considered by the OECD to be the baseline level of proficiency in PISA. Only one country, Singapore, at 84 percent, had a significantly higher proportion of students performing at or above Level 2 than Canada. Across provinces, the percentage of Canadian students at or above the baseline level of performance ranged from 69 percent in New Brunswick to 82 percent in Quebec, Ontario, and Alberta. At the higher end of the PISA global competence scale, 15 percent of Canadian students performed at Level 5, compared to 4 percent performing at this level across all countries.

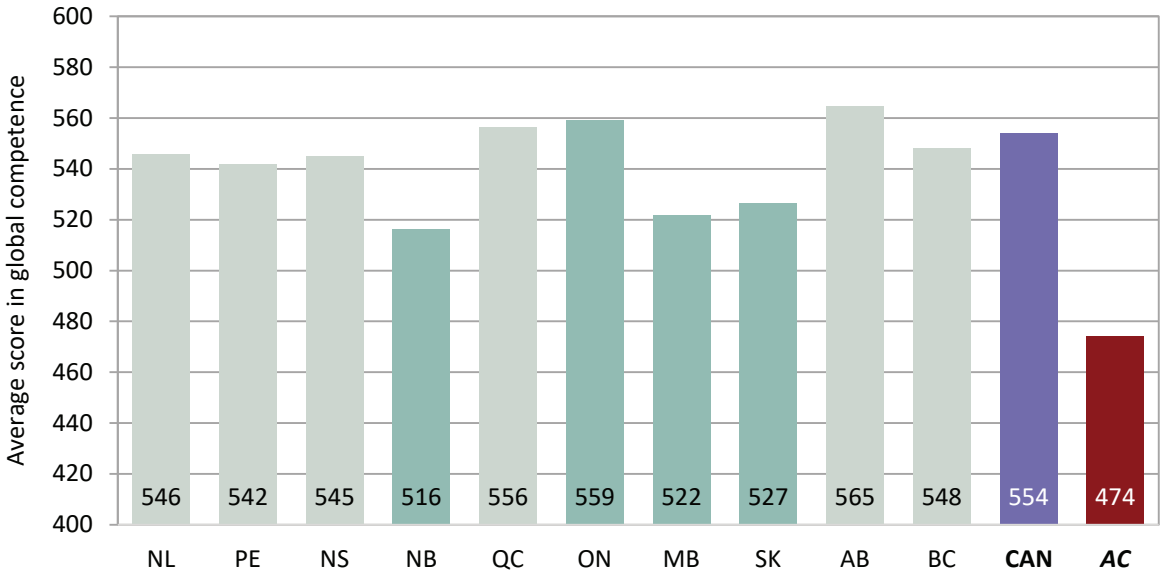
Figure 1 Percentage of students at each proficiency level in global competence



³ OECD, *PISA 2018 assessment and analytical framework*, pp. 166–167.

Overall, Canadian 15-year-old students achieved a mean score of 554 in global competence, which is 80 points above the all-country average. Only students in Singapore achieved higher scores than those in Canada. Canada overall and all provinces were above the all-country average, with scores ranging from 516 points in New Brunswick to 565 points in Alberta.

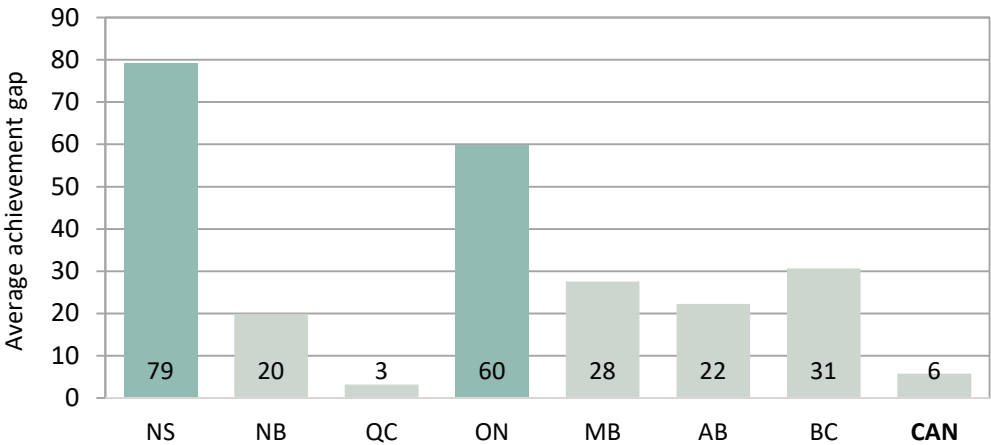
Figure 2 Achievement scores in global competence



Note: Darker shade denotes significant difference compared to Canada.
AC – all-country average

At the pan-Canadian level, there was no significant difference in achievement between anglophone and francophone school systems, but significant achievement gaps were observed between the two school systems in some provinces.

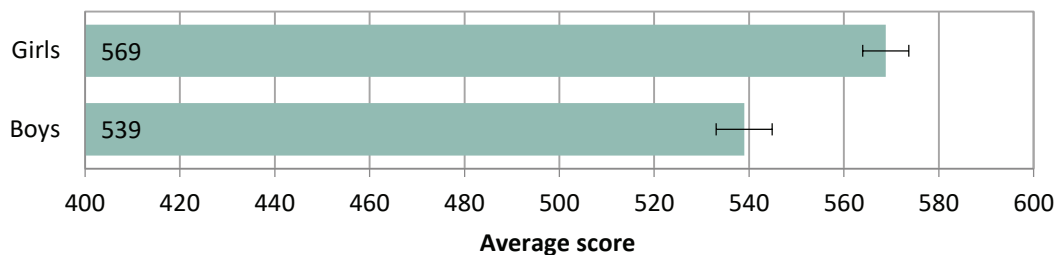
Figure 3 Achievement gap in global competence, by language of the school system



Note: Darker shade denotes a significant difference within the province between anglophone and francophone systems (A – F).
Newfoundland and Labrador, Prince Edward Island, and Saskatchewan did not oversample students by language.

On average across Canada, and in 20 of the 27 countries participating in the global competence assessment, girls outperformed boys when achievement was measured by average score.

Figure 4 Achievement scores in global competence in Canada, by gender



The dimensions of global competence

In the Canadian report, information obtained from the PISA global competence survey was organized according to three of the dimensions of the global competence conceptual framework shown in Table 1. Within these dimensions, several indices related to the PISA 2018 global competence student questionnaire and cognitive test were examined.

Examining local, global, and intercultural issues

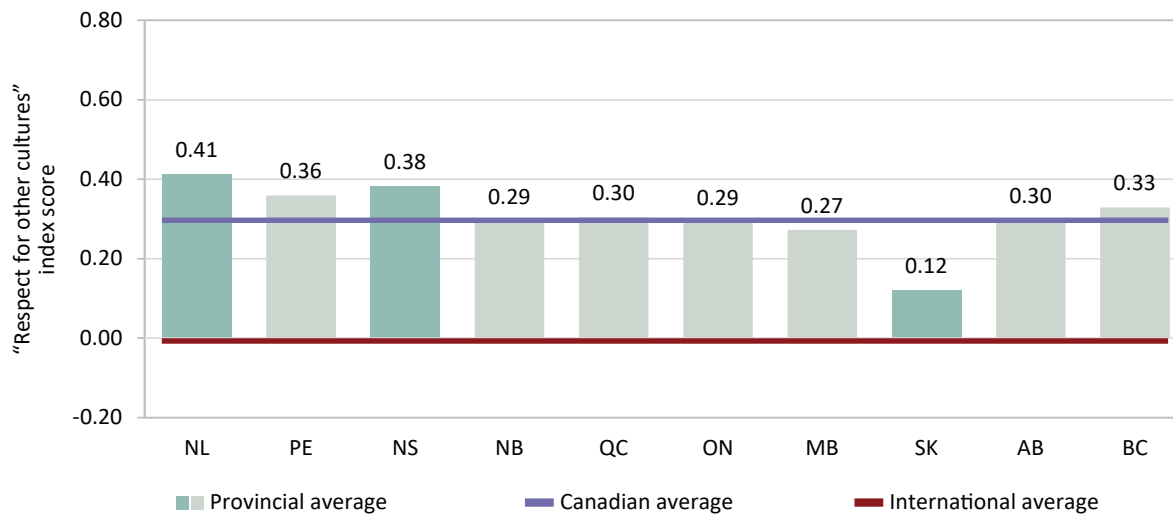
The first dimension — examining local, global, and intercultural issues — comprised two indices: students' awareness of global issues and their self-efficacy regarding global issues. Students were asked about their level of awareness of various issues as well as their confidence with respect to discussing or explaining global issues. The Canadian averages on both indices were positive and were significantly higher than the respective international averages. In Canada overall, the achievement gap between students in the top and bottom quarters of these indices was higher for the index of students' self-efficacy regarding global issues compared to the awareness of global issues index (69 points vs. 35 points). This trend was consistent internationally and across all provinces. This finding implies that students who already believe themselves to be competent with respect to global and intercultural issues were more likely to have higher achievement in global competence.

Understanding and appreciating the perspectives and worldviews of others

The second dimension — understanding and appreciating the perspectives and worldviews of others — was explored through three indices: respect for people from other cultures, interest in learning about other cultures, and attitudes toward immigrants. At the pan-Canadian level, a positive relationship was found between global competence achievement and respect for other cultures and positive attitudes toward immigrants. It is noteworthy that students were less likely to endorse items constituting the interest in learning about other cultures index compared to the respect for other cultures index.

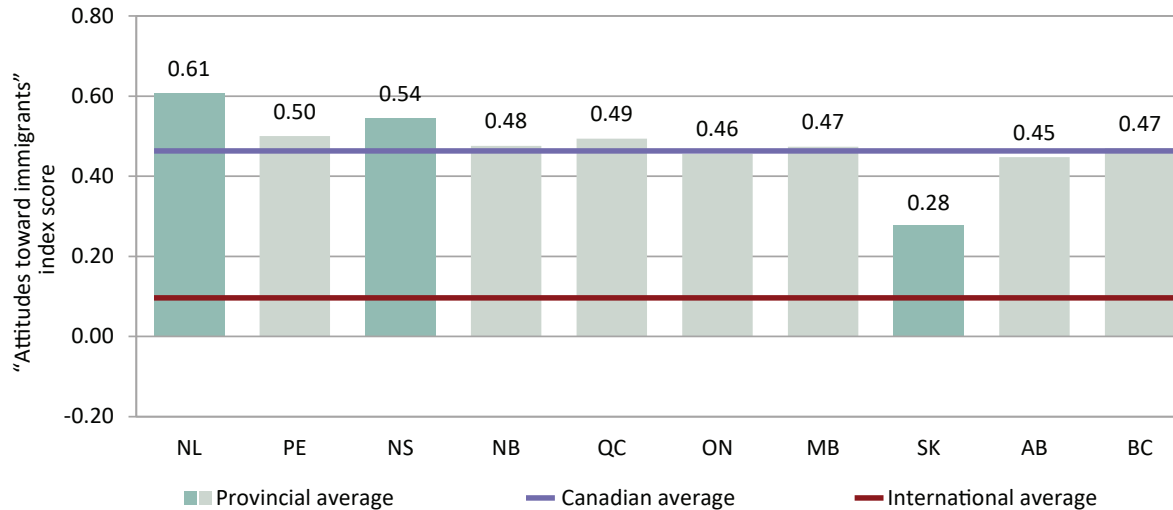
Canada had among the highest international averages in two indices: respect for people from other cultures and attitudes toward immigrants. For the index on respect for people from other cultures, index scores ranged from 0.12 in Saskatchewan to 0.41 in Newfoundland and Labrador (Figure 5). In all provinces, girls and students in the top quarter of the index of economic, social, and cultural status (ESCS) had significantly more positive attitudes toward people from other cultures than did boys and students in the bottom quarter of the ESCS index. As for the attitudes toward immigrants index, scores ranged from 0.28 in Saskatchewan to 0.61 in Newfoundland and Labrador (see Figure 6). In all provinces except for Prince Edward Island, girls and students in the top quarter of the ESCS index had significantly more positive attitudes toward people from other cultures than did boys and students in the bottom quarter of the ESCS index.

Figure 5 Average scores for the respect for other cultures index



Note: Darker shade denotes significant difference compared to Canada.

Figure 6 Average scores for the attitudes toward immigrants index



Note: Darker shade denotes significant difference compared to Canada.

Taking action for collective well-being and sustainable development

The third dimension — taking action for collective well-being and sustainable development — focused on the index of student agency regarding global issues and a series of questions on students' willingness to take action on such issues. At least 80 percent of Canadian 15-year-olds thought of themselves as citizens of the world and reported that looking after the global environment was important to them. In response to questions about their capacity to take action, the least common actions reported by students were boycotting products and companies, and signing petitions. Such actions require active participation or involve forms of active citizenship that adolescents may not be familiar with or that require considerable time and effort. Students who responded positively to questions related to saving energy and staying informed about global issues had higher achievement scores in global competence than those who answered in the negative to these two questions.

Looking forward

Results from the PISA 2018 study indicate that Canadian students demonstrate strong levels of global competence. In each of the six indices examined in the Canadian report, Canadian students performed above the international average. This indicates that, compared to their international peers, the average student in Canada tended to have more positive attitudes in each of the three dimensions of global competence that were assessed.

The results also point to considerable gaps in global competence achievement among sociodemographic groups in Canada, and these gaps were larger than those at the international level. Students in the top quartile of each index outperformed their peers in the bottom quartile, while girls and students with higher socioeconomic status (SES) were more likely to have more positive attitudes and skills than boys and students with lower SES. These notable differences between groups of students highlight the inherent link between attitudes and performance. Thus, PISA 2018 global competence findings underline the importance of understanding the role played by peers, teachers, parents, and media in shaping young people's views and values related to the global competence dimensions.

As stated in the UN Sustainable Development Goal for education, we need to ensure that, “by 2030, all learners acquire the knowledge and skills needed to promote sustainable development, including ... through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.”⁴ Education that helps young people gain the skills for living in an interconnected world will contribute to the development of global citizens who care about global issues and who are willing to take action toward collective well-being and sustainable development.

Further international results are available in *PISA 2018 (Volume VI): Are students ready to thrive in an interconnected world?*, available at: <http://www.oecd.org/pisa/publications/pisa-2018-results-volume-vi-d5f68679-en.htm>.

Further Canadian results are available in the report *Measuring up: Canadian Results of the OECD PISA 2018 Study — The Performance of Canadian 15-Year-Olds in Global Competence*. This report will be available electronically in spring 2021 at www.cmec.ca.

⁴ UNESCO, *Education 2030: Incheon Declaration and Framework for Action for the implementation of Sustainable Development Goal 4* (May 21, 2016), p. 21.