

Digital literacy skills of Canadian youth compare favourably with the OECD average

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At the end of the 2019/2020 academic year, schools moved quickly to online delivery of education as a result of the closures related to the COVID-19 pandemic. Across Organisation for Economic Co-operation and Development (OECD) countries and within Canada, schools have continued to support online learning either full time or in a hybrid model.

A previous Statistics Canada study, entitled "[COVID-19 Pandemic: School Closures and the Online Preparedness of Children](#)," examined children's Internet access as it is one of the most essential prerequisites for online learning. This study found that in 2018 a very small proportion (1%) of Canadian households with children did not have access to the Internet at home. Notably, this figure was higher for households in the bottom income quartile (4%), when compared with that of households in the top income quartile (0.2%).

Internet access is not the only important factor when examining readiness for online learning. Having access to a computer or tablet, using it regularly, and having the necessary digital skills are also important for online learning success. A new report released today, "[Education Indicators in Canada: An International Perspective, 2020](#)," includes a chapter that uses multiple data sources to examine these other requirements for online learning in the pre-pandemic context, within Canada and across OECD countries.

In 2018, 94% of 15-year-old students in Canada reported having access to a computer at home, a higher proportion than the OECD average

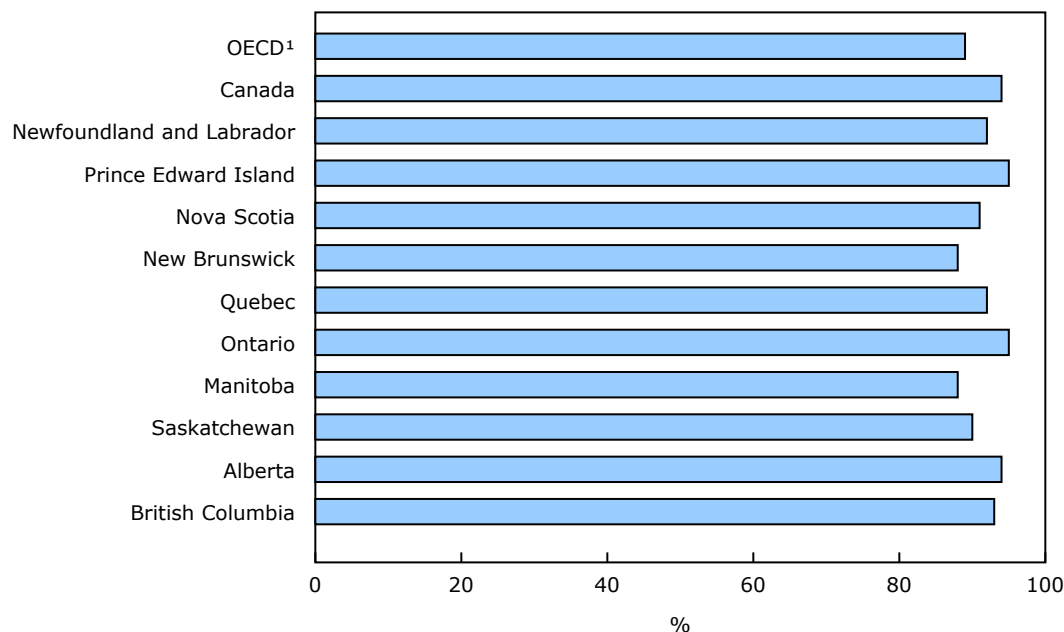
In 2018, prior to the COVID-19 pandemic, 94% of 15-year-old students in Canada reported having access to a computer at home that they could use for school work, higher than the OECD average of 89%. This proportion was similar across the provinces, with the exception of New Brunswick and Manitoba, where it was 88%. In Ontario, where this proportion was the highest, 95% of students reported having access to a computer at home.

As with access to the Internet, students from the most socioeconomically disadvantaged schools in Canada were also less likely to report having access to a computer for home use (see note to readers). In 2018, 88% of students from socioeconomically disadvantaged schools reported having access to a computer at home, compared with 98% of students from socioeconomically advantaged schools.



Chart 1

Percentage of 15-year-old students who reported having access to a computer at home that they can use for school work, 2018



1. The Organisation for Economic Co-operation and Development (OECD) average includes scores from the list of OECD member countries as of April 2020.

Note(s): The territories did not participate in the assessment.

Source(s): Programme for International Student Assessment, Council of Ministers of Education, Canada (7520), 2018.

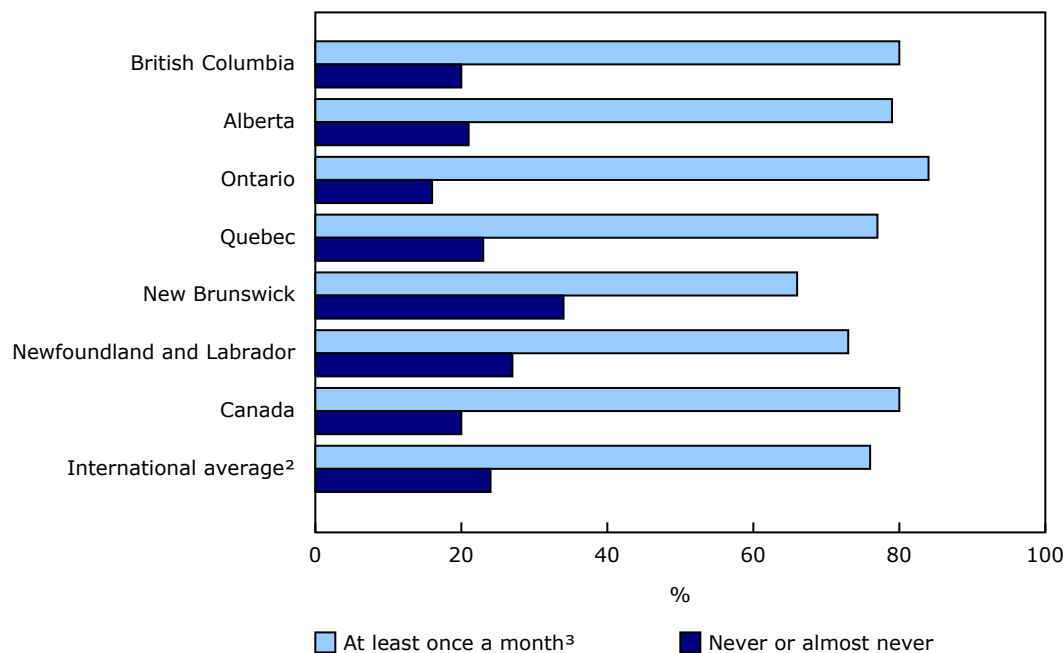
Grade 4 Canadian students more likely to report using a computer or tablet at home for school than the international average

While access to a device is one aspect of readiness for online learning, knowledge and experience with using these devices for schoolwork is also important. A student who is comfortable using a computer for schoolwork is more prepared for online learning than one who has never used a computer in this way. Another [international study](#) examined the frequency with which Grade 4 students used technology for educational purposes.

In 2016, 80% of Grade 4 students in Canada reported using a computer or tablet at home for school work at least once a month, 4 percentage points higher than the international average. Within Canada, among the provinces for which data are available, this proportion was highest in Ontario (84%) and British Columbia (80%).

Conversely, in 2016, a lower proportion of Canadian Grade 4 students (20%) reported never or almost never using a computer or a tablet at home for school work, compared with the international average (23%). New Brunswick (34%) and Newfoundland and Labrador (27%) had the highest percentage of Grade 4 students reporting never or almost never using a computer or tablet at home for school work.

Chart 2
Percentage of Grade 4 students who reported using a computer or a tablet at home for school work, by frequency, 2016¹



1. Grade 4 students are typically aged 9-10 years old.

2. This average includes all 50 countries who participated in Progress in International Reading Literacy Study (PIRLS) 2016.

3. "At least once a month" includes every day or almost every day, once or twice a week, or once or twice a month.

Note(s): The territories did not participate in the assessment.

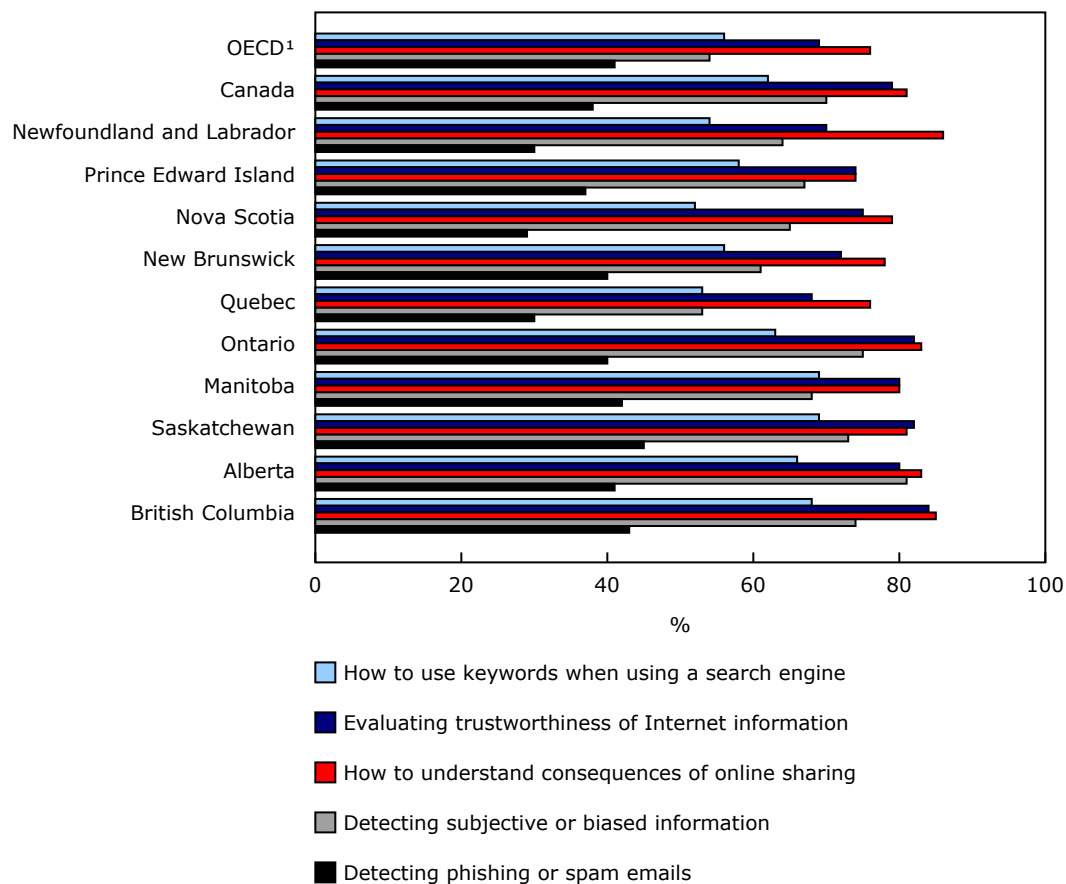
Source(s): Progress in International Reading Literacy Study (PIRLS), Council of Ministers of Education, Canada (7520), 2016.

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Knowing how to protect oneself online is as important as access to and use of a computer or tablet for schoolwork. Teaching digital literacy and online wellbeing techniques ensures that students have the skills to protect themselves from potential online threats such as sharing too much personal information, exposure to false information, or fraud.

In 2018, in Canada, 70% of 15-year-old students reported having been taught how to detect whether information is subjective or biased, compared with the OECD average of 55%. A higher proportion of Canadian students (79%) compared with the OECD average (69%) also reported being taught how to decide whether to trust information from the Internet, and how to understand the consequences of making information publicly available online through platforms such as on Facebook® or Instagram® (81% of Canadian students versus the international average of 76%). However, a lower proportion of Canadian students (38%) reported that they had been taught how to detect phishing or spam emails, compared with the OECD average (41%).

Chart 3
Percentage of 15-year-old students who reported having been taught digital literacy and well-being, by skill, 2018



1. The Organisation for Economic Co-operation and Development (OECD) average includes scores from the list of OECD member countries as of April 2020.
Note(s): The territories did not participate in the assessment.
Source(s): Programme for International Student Assessment, Council of Ministers of Education, Canada (7520), 2018.

In general, Canada compared favourably with the OECD average in terms of students' readiness to switch to an online learning environment. However, these findings highlight that there are several aspects to readiness such as access to devices, the extent to which students already use digital devices for school, and the skills that students have been taught to navigate an online world. This report found that among some of these aspects, readiness to learn online varied across the country.

Note to readers

Education Indicators in Canada: An International Perspective, 2020, is the 12th in a series of reports designed to complement the annual report of the Organisation for Economic Co-operation and Development (OECD) on education indicators, *Education at a Glance 2020: OECD Indicators*.

The 13 indicators presented in this 2020 Canadian compendium represent a selection of indicators that were developed to align with the definitions and methodologies used by the OECD in its most recent report. Data for Canada and its provinces and territories were drawn from several data sources and various reference years, as required to provide comparisons with OECD figures.

The 2020 indicator set for Canada, the provinces and territories captures information on educational attainment, graduation and completion rates at the secondary level, labour market outcomes, expenditures per student, expenditures on education, international students, transitions to the labour market, and the learning environment and organization of schools. It also presents a selection of topics related to the educational Sustainable Development Goals of the 2030 Agenda for Sustainable Development.

The Programme for International Student Assessment (PISA) is an international assessment of the skills and knowledge of 15-year-old students; in addition, it provides information about a range of factors that contribute to the success of students, schools, and education systems. PISA is a collaborative effort among member countries of the OECD.

The Progress in International Reading Literacy Study is an international assessment that measures trends in reading achievement of Grade 4 students, as well as the impact of policies and practices related to literacy. The study is administered every five years and is carried out by the International Association for the Evaluation of Educational Achievement, an independent cooperative of research institutions and governmental agencies.

In this article, a socioeconomically disadvantaged (advantaged) school is defined as a school whose socioeconomic profile (i.e. the average socio-economic status of the students in the school) is in the bottom (top) quarter of the PISA index of economic, social, and cultural status amongst all schools within Canada and the provinces.

Data for Canada, provinces and territories presented in the report were prepared by the Canadian Education Statistics Council, a partnership between Statistics Canada and the Council of Ministers of Education, Canada. The report is part of the Pan-Canadian Education Indicators Program of Statistics Canada.

Data for the OECD's [member countries](#) are from the OECD publication *Education at a Glance 2020: OECD Indicators*, available on the [OECD website](#).

Available tables: table [37-10-0130-01](#).

Definitions, data sources and methods: survey numbers [5060](#) and [7520](#).

The publication *Education Indicators in Canada: An International Perspective, 2020* ([81-604-X](#)), is now available.

For more information, or to enquire about the concepts, methods or data quality of this release, contact us (toll-free 1-800-263-1136; 514-283-8300; STATCAN.infostats-infostats.STATCAN@canada.ca) or Media Relations (613-951-4636; STATCAN.mediahotline-ligneinfomedias.STATCAN@canada.ca).