

Is Canada Really an Education “Super-power”? The Evidence Is Not as Clear-cut as You Might Think...

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When the Programme for International Student Assessment (PISA) results are released every three years, it is now little surprise that a set of East Asian nations (e.g. Singapore, Taiwan, Japan, South Korea) dominate the top spots in these rankings. These nations typically substantially outperform most English-speaking Western nations, with one important exception – Canada. This has not gone unnoticed by policymakers and the education media. Indeed, after the release of the PISA 2015 results, Canada was described as an “[education superpower](#)”¹ with various theories (from the strong academic performance of immigrants through to high levels of student motivation) put forward to explain this result. Indeed Andreas Schleicher – the man who has led the OECD’s PISA programme – suggesting that the strong commitment to equity in Canada is the key.

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¹ <https://www.bbc.co.uk/news/business-40708421>

But how much confidence can we really have in the Canadian PISA results?

One of the key pillars of PISA is meant to be that it is representative of each country's 15-year-old population. If this is not achieved, then we are not comparing like-with-like. For instance, if country A were to disproportionately exclude some groups of students, then it cannot be fairly compared to country B where a representative cross-section of young people did actually take part. This situation could emerge if, for instance, children with Special Educational Needs (SEN) are identified and treated differently across countries. Alternatively, in some countries, a significant number of students and schools may refuse to participate in the study.

The reality is that this is what happens in PISA – and we believe could substantially undermine the Canadian results.

This point is illustrated in Figure 1, which draws upon figures reported in the PISA 2015 technical report. Clearly, the figures for Canada are striking. Only around half (53%) of 15-year-olds in Canada were covered within the PISA 2015 assessment. This compares to more than 90% of 15-year-olds in Japan and South Korea.

Why do these figures for Canada look so bad? There is a mix of reasons.

First, schools in Canada were more likely to refuse to take part than schools in other countries, with the Canadian national report flagging particular issues within Quebec (where less than half of those schools approached agreeing to take part, [see](#)

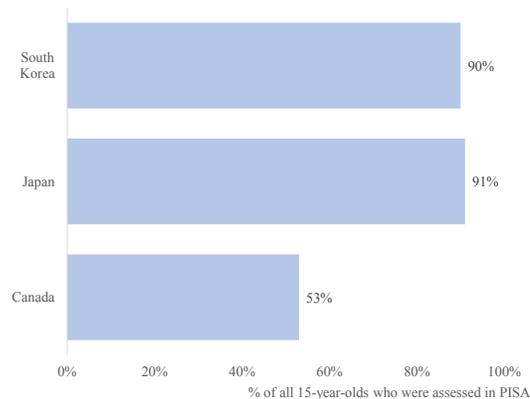


Fig. 1 The number of 15-year-olds in Canada, Japan and South Korea and the (weighted) number covered within the PISA assessment³.

³ Source: <http://www.oecd.org/pisa/sitedocument/PISA-2015-Technical-Report-Chapter-11-Sampling%20Outcomes.pdf>

Table A2)⁴. If it certain types of school (e.g. those with lower performing students) are less likely to take part than others (e.g. higher-performing schools), then this could lead to an upward bias in the Canadian PISA results. Second, Canada was much more likely to exclude pupils from taking the PISA assessment due to issues such as Special Educational Needs (7.5% of 15-year-olds were excluded in Canada compared 2.4% in Japan and less than 1% in South Korea) – a group who are likely to be very low achievers.

Finally, students in Canada were less likely to actually sit the PISA assessment - even within schools that agreed to take part. Specifically, the official figures show that almost 20% of Canadian teenagers were counted as absent on the day of the PISA test compared to less than 3% of those in Japan and South Korea. It is well-known that certain types of student (e.g. lower achievers from lower socio-economic backgrounds) have higher absence rates from school and these characteristics are likely to be associated with performance on the PISA test. It hence seems likely that this would lead to an upward bias in the results.

Together, this adds up to a significant problem, which we believe significantly undermines our confidence in the PISA 2015 data for Canada. We believe that there are particular problems in drawing comparisons to other “high-performing” countries – Japan and South Korea in our example – where a genuinely representative cross-section of children took part.

Indeed, after scratching below the surface, evidence of Canada being an “education superpower” does not seem to be particularly strong at all.

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⁴ <https://www.cmec.ca/publications/lists/publications/attachments/365/pisa2015-cdnreport-en.pdf>