

Ontario (CA) **24**  
OECD average **30**

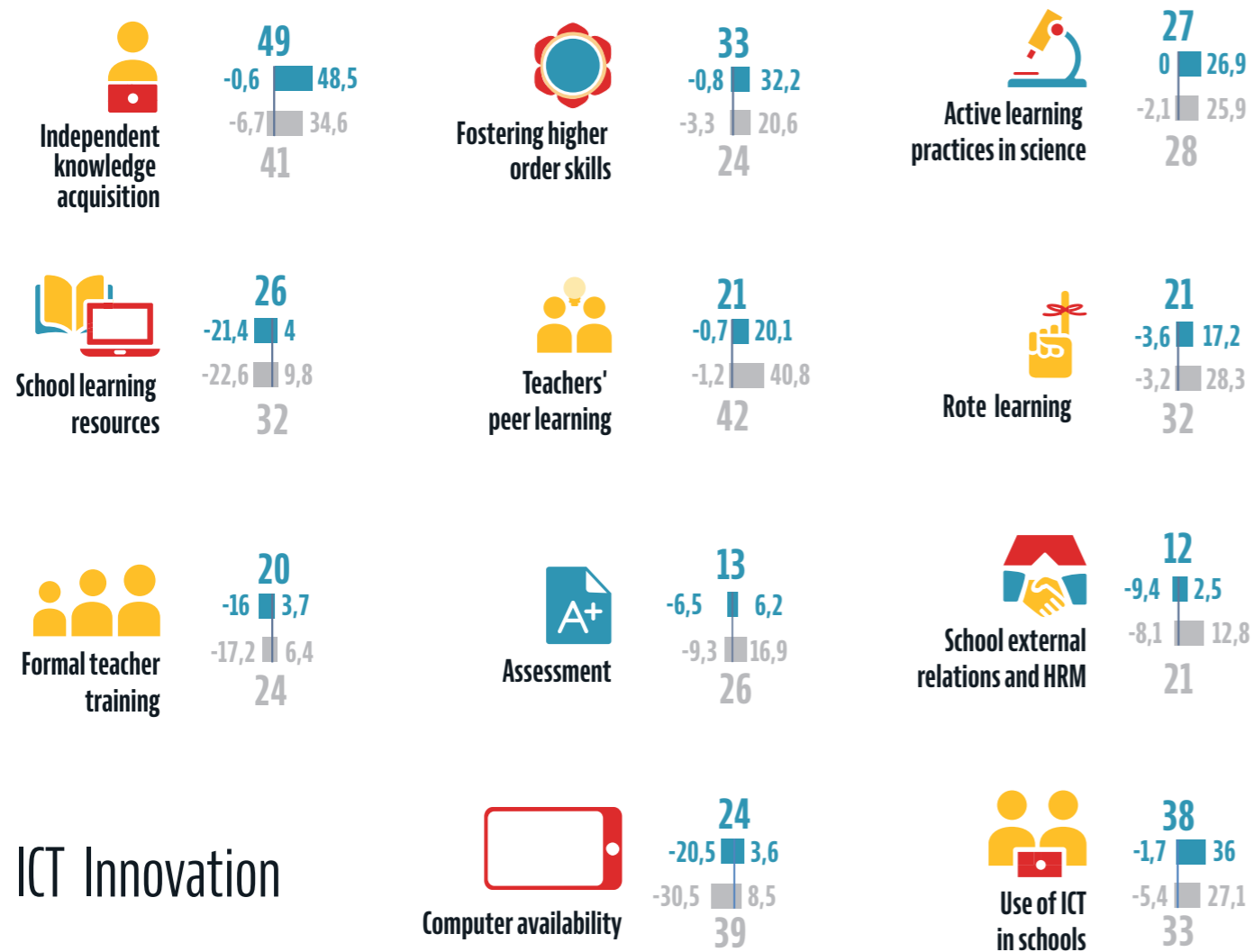
# Education Innovation Index



## Innovation in education by category



## Innovation in education by type of practice



## ICT Innovation

## Ontario (CA)

Between 2006 and 2016, educational innovation in Ontario (Canada) has been modest, and much lower than in other OECD education systems. The change in practices has been slightly larger in primary than in secondary education, but both remained markedly below the OECD average. Innovation in maths has been higher than in reading and science, though still below the OECD average. As in other OECD systems, technology education has taken the form of a decrease in computer availability, but a scale up of practices using computers in teaching and learning. Innovation has mainly taken place in three types of teaching and learning practices: independent knowledge acquisition in class, the fostering of higher order skills and active learning practices in science. The education system in Ontario remained relatively stable when compared to neighbouring Quebec.

## Some trends in educational outcomes



- Student satisfaction in primary and secondary education
- Student enjoyment in primary and secondary science lessons
- Teachers' collective ambition for their students in primary education



- Academic outcome in primary and secondary science
- Academic outcome in primary and secondary maths
- Teachers' collective ambition for their students in secondary education
- Teachers' collective self-efficacy in primary and secondary education
- Equity of academic outcome in primary reading
- Equity of academic outcome in primary and secondary science
- Equity of academic outcome in primary and secondary maths



- Academic outcome in primary reading

## Practices that changed the most

### Primary

- 54 more students in 100 frequently practised maths skills and procedures on computers, reaching a **59%** coverage
- 28 more students in 100 had their teachers participating in a programme for improving students' critical thinking or problem solving skills in maths lessons, reaching an **81%** coverage
- 21 less students in 100 had a science laboratory available for use at school, reaching a **7%** coverage

### Secondary

- 35 more students in 100 systematically discussed maths homework in class, reaching an **82%** coverage
- 28 more students in 100 frequently observed and described natural phenomena in science lessons, reaching a **47%** coverage
- 25 more students in 100 frequently processed and analysed data on computers in maths, reaching a **27%** coverage



# Ontario, Canada

Measuring Innovation in Education 2019

What has changed in the classroom?

Measuring innovation in education and understanding its process is essential to improve the quality of the education sector. We need to examine whether, and how, practices are changing within classrooms and educational organisations and how students use learning resources. We should know much more about how teachers change their professional development practices, how schools change their ways to relate to parents, and, more generally, to what extent change and innovation are linked to better educational outcomes. This would help policy makers to better target interventions and resources, better understand where they need to get better evidence, and get quick feedback on whether reforms do change educational practices as expected. This would also enable us to better understand the role of innovation in education.

## Key findings for OECD education systems

- On average, there has been a moderate level of innovation in OECD education systems, perhaps more than one would often acknowledge, but probably less than what would be needed to really improve education systems
- Many education systems have experienced high levels of technology-related innovation, with a slight decrease in access to computers and a significant increase of the use of ICT in pedagogical practices. Furthermore, on average, access to laptops increased by 17 % points between 2009 and 2015.
- In many countries, peer learning has spread as a teacher professional development practice – increasing by 40 % points for the OECD on average.
- While many policy debates have focused on “21st century skills” in the past decade, rote learning practices have spread to a similar extent as active learning practices, increasing by 28 and 26 % points respectively.
- While in some practices there have been similar patterns across education systems, in most of them there does not seem to be an international convergence on pedagogical and educational practices.
- Innovation is not an end in itself, and some changes have not always translated into improvements in educational outcomes.

## Methodology

The book examines the diffusion or contraction of about 150 educational practices from 2006 to 2016 by analysing data from three international education datasets – Trends in International Mathematics and Science Study (TIMSS), Progress in International Reading Literacy Study (PIRLS), and the Programme on International Student Assessment (PISA). Beyond identifying the areas in which each education system has demonstrated emerging or changing organisational and pedagogical practices over a decade, the book synthesises education systems’ intensity of innovation by computing composite indices for countries for which enough information is available. Based on effects sizes (multiplied by 100), the education innovation indices propose a continuum, with innovation intensity being considered as relatively small when below 20, moderate between 20 and 40, and large above 40. More details on the methodology can be found in the report.

## Ask questions

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## Find the report

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