

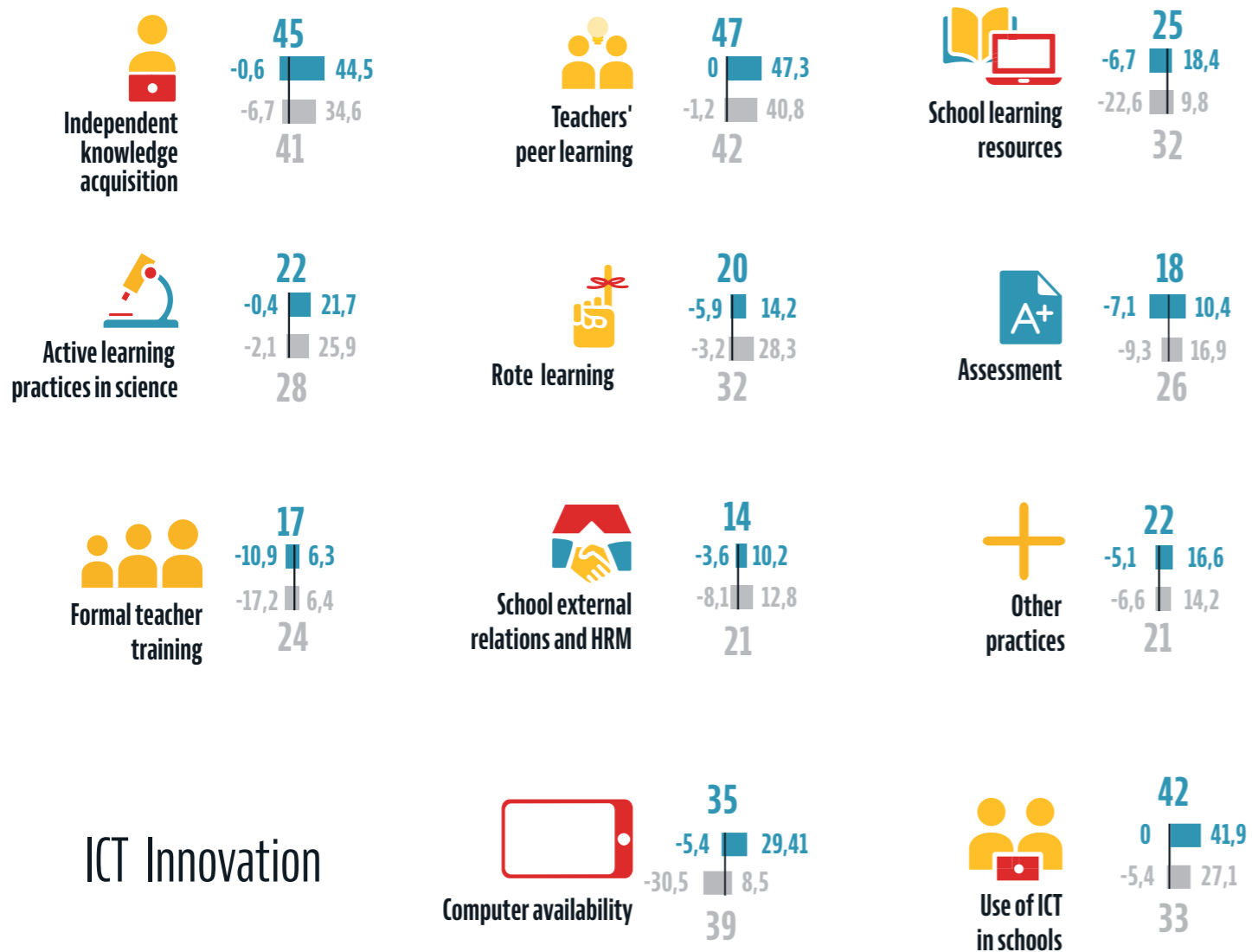
# New Zealand 27 | Education Innovation Index

OECD average 30

## Innovation in education by category



## Innovation in education by type of practice



## ICT Innovation



## New Zealand

Between 2006 and 2016, students in New Zealand have experienced a moderate level of innovation in education, a bit less than in an average OECD system. Changes in mathematics education practices have been close to the OECD average, but much lower for reading. Primary students in New Zealand experienced as much innovation as their OECD peers, suggesting that there was less change in secondary education practices. As the timeframe for secondary education was often just between 2011 and 2015, a secondary education innovation index was not computed (and this should be interpreted with caution). The use of technology in school has spread more than in other systems, but a big difference with other systems lay in an increased access to computers (while this typically decreased in other systems). Big changes occurred through the spread of teacher peer learning and independent knowledge acquisition in class.

## Some trends in educational outcomes

- Student satisfaction in primary education
- Student enjoyment in primary science lessons
- Teachers' collective ambition for their students in primary education
- Academic outcome in primary science
- Academic outcome in primary maths
- Teachers' collective self-efficacy in primary education
- Equity of academic outcomes in primary reading
- Equity of academic outcomes in primary science
- Equity of academic outcomes in primary maths
- Academic outcome in primary reading

## Practices that changed the most

### Primary

- 50** more students in 100 in maths and **43** more in reading frequently used computers to look up for ideas and information, at least once a week, reaching a **54%** and **84%** coverage respectively
- 74** more students in 100 frequently practised maths skills and procedures on computers, reaching an **87%** coverage
- 25** more students in 100 had their teachers visiting another classroom to learn more about teaching, reaching a **29%** coverage

### Secondary

- 34** more students in 100 had science teachers collaborating in preparing instructional material, reaching a **65%** coverage
- 42** more students in 100 had portable laptops or notebooks available for use at school, reaching a **75%** coverage
- 27** more students in 100 frequently used computers to look up for ideas and information in maths, reaching a **37%** coverage

The indices indicate innovation intensity from small (below 20) to large (over 40). When displayed, positive and negative values show how much of the index corresponds to an expansion and contraction of the covered practices between 2006 and 2016. Authors' calculations based on the PIRLS, PISA and TIMSS databases.



# New Zealand

## 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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# New Zealand

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### What has changed in the classroom?

