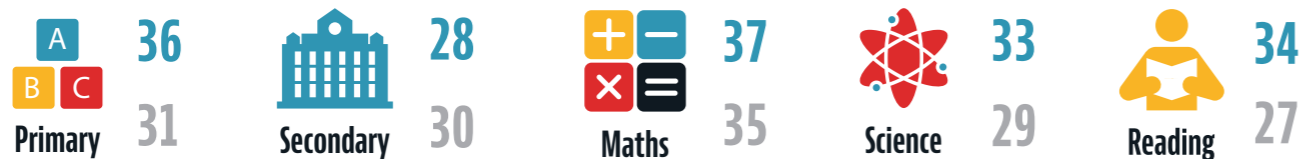


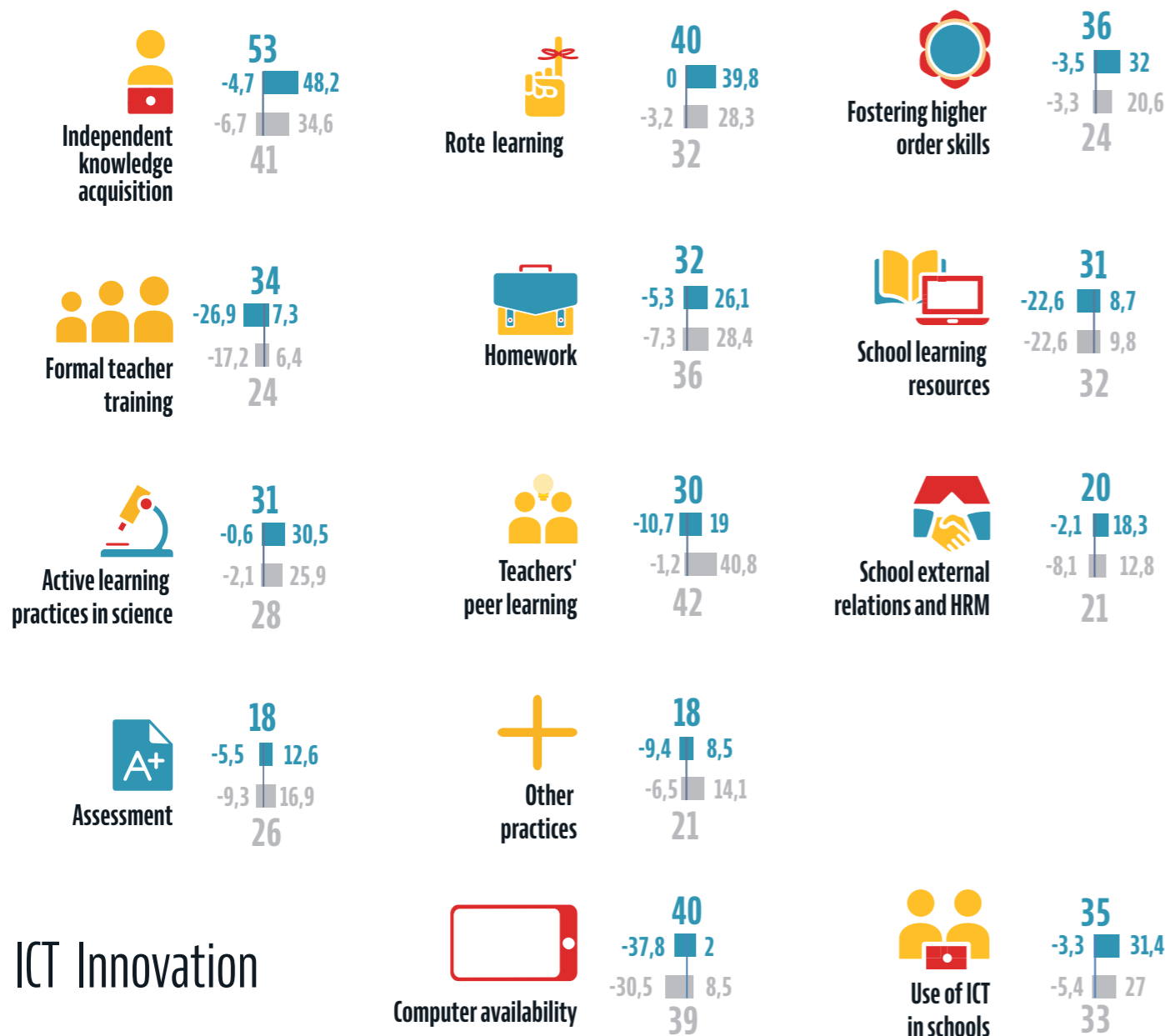
Norway 32 | Education Innovation Index

OECD average 30

Innovation in education by category



Innovation in education by type of practice



ICT Innovation



Norway

Between 2006 and 2016, Norway experienced a relatively high level of innovation in its education practices, slightly more than the OECD average. Innovation took place to a greater extent in primary education, where it has been relatively high, while that in secondary has been more modest. Innovation in maths practices has been large, considerably higher than in science and reading. Norway is nevertheless one of the few countries where innovation in reading lessons has been relatively large, and certainly much larger than in other OECD systems. As in other systems, access to computers has decreased overall, but the use of ICT in school has become more common. Innovation occurred through a significant spread of independent knowledge acquisition practices, rote learning practices, but also practices fostering students' higher order skills.

Some trends in educational outcomes



- Academic outcome in primary science
- Academic outcome in primary and secondary maths
- Academic outcome in primary reading
- Student satisfaction in primary and secondary education
- Student enjoyment in primary and secondary science lessons
- Teachers' collective ambition for their students in primary and secondary education
- Teachers' collective self-efficacy in secondary education



- Academic outcome in secondary science
- Teachers' collective self-efficacy in primary education
- Equity of academic outcomes in primary reading
- Equity of academic outcomes in primary and secondary science
- Equity of academic outcomes in secondary maths



- Equity of academic outcomes in primary maths

Practices that changed the most

Primary

- 51 more students in 100 frequently practised maths skills and procedures on computers, reaching a 56% coverage
- 43 more students in 100 frequently discussed read text with peers at least once a week, reaching an 82% coverage
- 30 more students in 100 frequently used computers to look up for ideas and information in maths, reaching a 32% coverage

Secondary

- 35 more students in 100 systematically discussed maths homework in class, reaching a 44% coverage
- 32 less students in 100 had their teachers participating in a program on maths curriculum, reaching an 11% coverage
- 32 more students in 100 went to schools which tracked achievement data over time by an administrative authority, reaching a 74% 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 a expansion and contraction of the covered practices between 2006 and 2016. Authors' calculations based on the PIRLS, PISA and TIMSS databases.

Norway

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

<https://tinyurl.com/MIE2019>

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