2nd Survey of Schools: ICT in Education

Finland Country Report
This study was carried out for the European Commission by

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Finland

Country report on ICT in Education
Objectives of the 2\textsuperscript{nd} Survey of Schools

**Objective 1: Benchmark progress of ICT in schools** by surveying head teachers, teachers, students and parents covering the EU28, Norway, Iceland and Turkey

- Country-specific reports

**Objective 2: Development of a model for a ‘highly equipped and connected classroom’ (HECC)** and estimation of the overall costs to equip and connect an average EU classroom with advanced components of the HECC model

Benchmark progress in ICT: background

**Target population:**
- Schools (400 schools per country)
- Interviews with: head teachers, class teachers, students and parents

**Methodology:**
- Online questionnaire 15 minutes (parent survey) to 28 minutes (head teacher survey)
Sampling: class selection

Objective: Within one school, survey one teacher from ISCED level 1, and 3 teachers from a range of subjects from ISCED levels 2 and 3

School is randomly selected

School head teacher receives an invitation email asking school to participate

School head teacher completes registration survey + provides school coordinator contact details

School coordinator receives invitation email to provide information on each relevant class

Class selection through automated system, selected teachers are sent invitation email

Unique student and parent links and passwords distributed in selected classes
Key fieldwork statistics for Finland

- 2,672 completed school interviews
- 98 completed ISCED 1 teacher interviews
- 148 completed ISCED 3 teacher interviews
- 1,478 completed student interviews
- 311 completed head teachers interviews
- 152 completed ISCED 2 teacher interviews
- 670 completed parent interviews

Number of schools invited for the survey: 5
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*The above overview presents the standardised structure that has been used for all country fiches produced in the course of this 2nd Survey of Schools: ICT in education. Data for each specific country is only shown if sufficient responses were provided for this particular question. For more information regarding the inclusion criteria applied please refer to the last page of this country report and the full technical report: European Commission (2019). 2nd Survey of Schools: ICT in Education – Technical Report. Luxembourg: European Commission. doi: 10.2759/035445.*
1. Share of digitally equipped and connected schools

![Graph showing the share of digitally equipped and connected schools at ISCED levels for FI and EU]

**Key Findings**

- Highly digitally equipped and connected schools have (among other features) a high provision of digital equipment (laptops, computers, cameras, whiteboards) per number of students and a high broadband speed.
- Compared to the European average there are more highly digitally equipped and connected schools at all ISCED levels.
2. Schools’ Internet speed

Key Findings

- High-speed connectivity above 100 mbps: higher share at all ISCED levels, compared to the European average
### 3. Share of students who use a computer at school on a weekly basis

#### Students who use a computer (desktop/laptop/notebook) at school for learning purposes - At least once a week
(ISCED 2 and 3, in % of students, FI and EU level, 2017-18)

<table>
<thead>
<tr>
<th>ISCED 2</th>
<th>FI</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>FI</td>
<td>44%</td>
<td></td>
</tr>
<tr>
<td>EU</td>
<td></td>
<td>52%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ISCED 3</th>
<th>FI</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>FI</td>
<td>69%</td>
<td></td>
</tr>
<tr>
<td>EU</td>
<td>59%</td>
<td></td>
</tr>
</tbody>
</table>

- Lower share at ISCED level 2 but higher share at ISCED level 3, compared to the European average
4. Own equipment used for learning

Students who use an own equipment for learning purposes during lessons - At least once a week
(ISCED 2 and 3, in % of students, FI and EU level, 2017-18)

- Higher share of own smartphone use in Finland at ISCED levels 2 and 3 compared to the European average
- Higher share of own laptop use in Finland at ISCED level 3 compared to the European average
5. Share of digitally supportive schools

Key Findings

- Schools with a strong policy, strong support have (among other features) existing school strategies in place to use digital technologies in teaching and learning and strongly promote teachers’ professional development.
- Strong policy, strong support: Higher share in Finland at all ISCED levels compared to the European average.
6. Students’ confidence in their digital competence

- Digital competence is defined according to the DigComp framework, detailed on slide 17.
- Compared to the European average, slightly higher confidence of students in Finland at all ISCED levels in all digital competence areas – except in problem solving (ISCED 2).
7. Coding/ programming activities of female vs. male students

Key Findings

- Female students less frequently engage in coding/programming compared to male students at ISCED levels 2 and 3.
- At ISCED levels 2 and 3, there is a higher share of female and male students, who never or almost never code and program apps or programs in Finland, compared to the European average.
### 8. Teachers’ confidence in their digital competence

#### Key Findings

- Digital competence is defined according to the DigComp framework, detailed on slide 17
- Slightly lower confidence of teachers in Finland at ISCED level 1 in all digital competence areas – except in information and data literacy as well as problem solving, compared to the European average
- Slightly higher confidence of teachers in Finland at ISCED levels 2 and 3 in all digital competence areas, compared to the European average

#### Confidence of teachers in their digital competence (based on the DigComp framework)

(All ISCED levels, FI and EU level, 2017-18)

<table>
<thead>
<tr>
<th></th>
<th>Safety</th>
<th>Communication and collaboration</th>
<th>Information and data literacy</th>
<th>Problem solving</th>
<th>Digital content creation</th>
</tr>
</thead>
<tbody>
<tr>
<td>FI ISCED 1</td>
<td>2.51</td>
<td>2.95</td>
<td>3.07</td>
<td>3.27</td>
<td>3.25</td>
</tr>
<tr>
<td>EU ISCED 1</td>
<td>2.62</td>
<td>3.16</td>
<td>3.18</td>
<td>3.39</td>
<td>3.39</td>
</tr>
<tr>
<td>FI ISCED 2</td>
<td>2.66</td>
<td>3.05</td>
<td>3.18</td>
<td>3.46</td>
<td>3.46</td>
</tr>
<tr>
<td>EU ISCED 2</td>
<td>2.62</td>
<td>3.03</td>
<td>3.18</td>
<td>3.46</td>
<td>3.46</td>
</tr>
<tr>
<td>FI ISCED 3</td>
<td>2.6</td>
<td>3.03</td>
<td>3.23</td>
<td>3.49</td>
<td>3.49</td>
</tr>
<tr>
<td>EU ISCED 3</td>
<td>2.67</td>
<td>3.05</td>
<td>3.27</td>
<td>3.49</td>
<td>3.49</td>
</tr>
</tbody>
</table>

1 - Not all  2 - A little  3 - Somewhat  4 - A lot
9. Type of training of teachers

Key Findings

- Higher share in Finland at ISCED level 1 – except in subject-specific training on learning applications, compared to the European average
- Lower share in Finland at ISCED levels 2 and 3 – except in courses on the pedagogical use of ICT in teaching and learning, compared to the European average
10. Parents' confidence in teaching child to use Internet safely and responsibly

The share of parents in Finland who feel “highly confident” in teaching their child to use the Internet safely and responsibly is higher at ISCED levels 1 and 3 and lower at ISCED level 2 compared to the European average.
The Digital Competence Framework for Citizens (DigComp), which was created by the European Commission, Joint Research Centre on behalf of DG EAC and EMPL, is used to match several questions on teachers’ and students’ confidence from the survey with the five competence areas of the DigComp framework.

<table>
<thead>
<tr>
<th>Competence areas dimension 1</th>
<th>Competences dimension 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Information and data literacy</strong></td>
<td>• Searching, evaluating, managing data, information and digital content</td>
</tr>
</tbody>
</table>
| **Communication and collaboration** | • Interacting, sharing, engaging, collaborating through digital technologies  
• Managing digital identity |
| **Digital content creation** | • Developing digital content, programming  
• Understanding Copyright and licences |
| **Safety** | • Protecting devices, personal data and privacy and well-being |
| **Problem solving** | • Solving technical problems  
• Identifying needs and technological responses and digital competence gaps |
Technical notes

• For certain ISCED levels within countries, the number of achieved interviews was too low to use the data for analytical purposes.
• Findings from sample sizes that are too small would be meaningless, and as such, these results had to be eliminated from the final dataset.
• The minimum threshold to process the data for each target group was at least n=30 participating schools per country and ISCED level (or 10% of the universe for smaller countries).
• Quality data checks at question level were additionally performed to guarantee at least n=30 valid data entries (relevant e.g. when a lot of don’t know answers were given).
European Commission


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