

## ICILS Teacher Panel 2020:

**What has changed in education during COVID-19, and how can education continue despite these impediments?**

The [ICILS Teacher Panel 2020](#) provides unique insights into changes in the use of computers and information technology in teaching since the outbreak of COVID-19 in participating countries Denmark, Finland, and Uruguay.

This study provides a foundation for policymakers, researchers, and other stakeholders to better understand the impact of the COVID-19 pandemic on teaching and learning from a unique longitudinal perspective. The pandemic has impacted education around the world. It is important to learn from this experience and build more resilient education systems in the face of future disruption.

With existing ICILS 2018 data and findings, IEA was able to re-administer the questionnaires to teachers and schools that had participated in ICILS 2018 again in late 2020. This marks the **first time in 40 years that IEA has conducted a panel study.**

Teachers, as the primary implementers of computers and information technology in delivering instruction to students, shared their views and experiences. The teacher questionnaire consisted of existing items from ICILS 2018, with a few additional items to collect information specific to the pandemic. The study was administered to the **same individual teachers who participated in ICILS 2018.** School principals and ICT coordinators provided contextual information relating to school IT resources before and during the educational disruption, with some commentary on the changes within schools.

**IEA Executive Director Dr Dirk Hastedt** added,

“Knowing that education institutions have been forced to adapt is not the same as having the data to see how they have done so and to what degree these changes have been effective. That is where the **urgency for the supplementary ICILS Teacher Panel** came into focus.

This information must be **reliable**, and part of that means **collecting data in a sensitive and mindful manner** while the experiences incurred are still fresh in the memory of teachers, principals, and ICT coordinators. In addition, as it was necessary to capture these experiences in a timely manner to ensure responses reflected changes caused by the pandemic, this resulted in **one of the quickest study implementations in IEA’s history.**”

### **More computer use, stable social inequality**

Teachers in all participating countries have been using computers and information technology for learning and teaching **significantly more frequently since the outbreak of COVID-19.**

Unsurprisingly, teachers who already used computers and technology before the pandemic continued to do so during the pandemic.

### Key findings:

According to teachers' perceptions, the challenges of teaching during the COVID-19 pandemic meant several improvements regarding ICT in delivering instruction between 2018 and 2020.

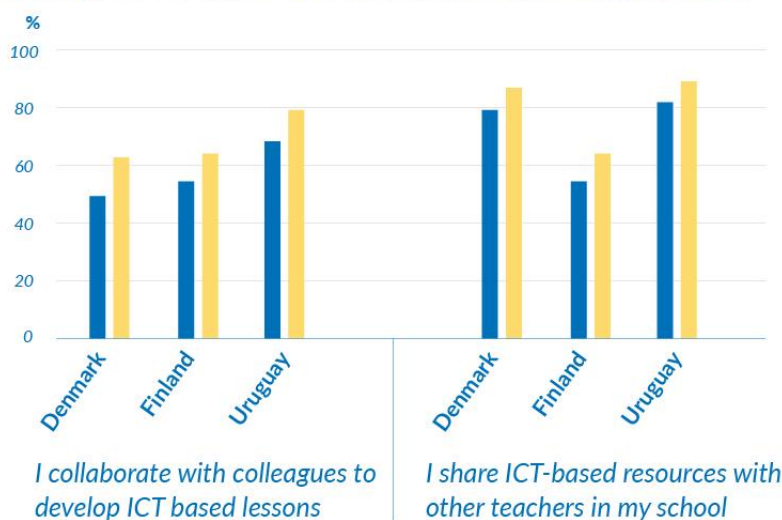
#### Teachers rely more on digital tools than before

- Higher percentage of teachers report using learning management systems, collaborative software, digital contents linked with textbooks, word-processing software, and communication software (among others).
- The increase in the use of ICT tools is higher in Uruguay, where ICT tools were used less than in Denmark and Finland in 2018.

#### The circumstances of 2020 changed teachers' attitudes towards collaboration on ICT use

- More teachers report collaborating activities in ICT use, such as working with other teachers, developing ICT-based lessons, observing classes, and sharing resources. See the infographic below for country-specific data:

#### A higher percentage of teachers agree with statements about the collaborative use of ICT in teaching and learning compared to pre-pandemic.



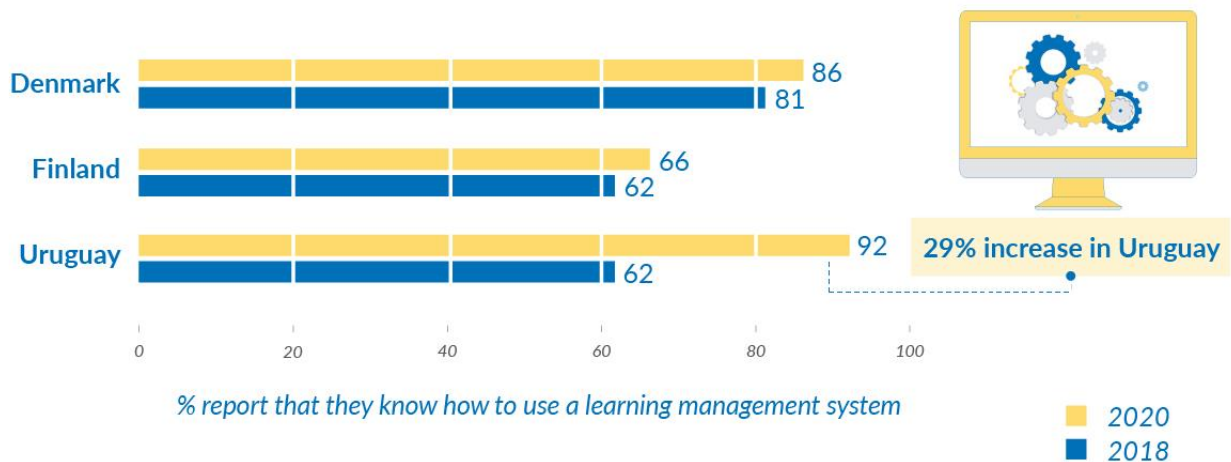
ICILS Teachers Panel



#### Increased knowledge in the use of ICT tools reduces the gap across the participating countries in ICT self-efficacy

- More teachers report knowing how to use a learning management system, collaborating with others using shared resources with ICT, assessing student learning with ICT tools, and preparing lessons that involve the use of ICT by students.
- In Uruguay, there is, for example, a 29% increase in teachers' perceptions of their own ICT self-proficiency in using a learning management system, rising from 62% in 2018 to 92% in 2020. See below for comparative data across countries:

## Compared to pre-pandemic, an increase in ICT self-efficacy was reported by teachers.



### Teachers report improved availability of ICT resources at schools

- In all three countries there is an improvement in ICT equipment, access to digital resources, technical support, and internet connectivity.
- There is a gap in the availability of resources across countries, although the gap reduced for some ICT resources.

### Socioeconomic gaps in educational opportunity related to ICT use and attitudes remained stable and small

- Teachers from socioeconomically advantaged and disadvantaged schools in the three participating countries report similar availability of ICT resources and use of ICT in class before the pandemic in 2018.
- The existing socioeconomic gap in educational opportunity remains stable during the pandemic in 2020.

Commenting on the findings, **ICILS Teacher Panel 2020 Study Director and Co-Head of Research and Analysis Unit at IEA, Dr Rolf Strietholt** said:

“Evidence from the ICILS Teacher Panel suggests that social inequalities in educational opportunity offered by schools did not change during the pandemic. The study did not investigate students’ experiences of learning during the pandemic. It is still possible that the lack of computers at home, and relative disadvantage in home learning support, may have affected socially disadvantaged students’ capacity to learn under the changed conditions imposed by the pandemic.”

**ENDS**

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### **Notes to Editors:**

#### **About the International Association of Educational Achievement (IEA)**

[IEA](#) is an independent, international cooperative of national research institutions, governmental research agencies, scholars, and analysts working to research, understand, and improve education worldwide. It conducts high-quality, large-scale comparative studies of educational achievement and other educational aspects, across the globe to provide educators, policymakers, and parents with insights into how students perform.