

International Computer and Information Literacy Study

Final Progress Report

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ICILS Aims

- ICILS aims to:
 - *investigate, in a range of countries, the ways in which young people are developing computer and information literacy (CIL) to support their capacity to participate in the digital age*

Research Questions

Four research questions focused on the following:

- i. Variations in CIL within and across countries;
- ii. Aspects of schools, education systems, and teaching associated with student achievement in CIL;
- iii. The extent to which students' access to, familiarity with, and self-reported proficiency in using computers is associated with student achievement in CIL; and
- iv. Aspects of students' personal and social backgrounds associated with CIL.

ICILS Instruments

- **Student test**
 - Four 30 minute modules (each student completes two)
- **Student questionnaire**
 - Background information, computer use in and out of school
- **Teacher questionnaire**
 - Background information, computer use in teaching and attitudes towards computer use in teaching
- **ICT-Coordinator questionnaire**
 - School resourcing for use of ICT in teaching
- **Principal questionnaire**
 - School characteristics and policies for use of ICT in teaching and learning
- **National Contexts Survey**
 - Education system characteristics, policies and resourcing relating to CIL education



2013: Release of ICILS Assessment Framework

http://www.iea.nl/fileadmin/user_upload/Publications/Electronic_versions/ICILS_2013_Framework.pdf

Participating countries (21)

Australia, the City of Buenos Aires (Argentina)*, Chile, Croatia, Czech Republic, Denmark, Germany, Hong Kong SAR, Korea, Lithuania, the Netherlands, Norway (Grade 9), Newfoundland and Labrador (Canada)*, Ontario (Canada)*, Poland, the Russian Federation, the Slovak Republic, Slovenia, Switzerland, Thailand, and Turkey.

*Benchmarking participants

Participants

- ~ 3300 schools
 - PPS sampling
 - One principal and one ICT Coordinator per school
- ~ 60, 000 students
 - Up to 20 students per school randomly sampled from the target grade
- ~ 35, 000 teachers
 - Up to 15 teachers per school randomly sampled all teachers who teach the target grade
- National Center staff
 - national contexts survey

2014: Reporting Phase

- IEA DPC received data files and undertook cleaning, weighting and computation of item statistics
- ISC at ACER completed
 - Analysis of item dimensionality
 - Scaling analysis
 - Item adjudication
 - Final scaling
 - Analysis for reporting tables
- ICILS International Report in layout phase before publication
 - Draft report reviewed by NRCs in June 2014 and by IEA PEC and other experts in September 2014

Computer and Information Literacy

an individual's ability to use computers to investigate, create and communicate in order to participate effectively at home, at school, in the workplace and in the community.

Strand 1 *collecting and managing information*

Aspect 1.1: Knowing about and understanding computer use;

Aspect 1.2: Accessing and evaluating information; and

Aspect 1.3: Managing information

Strand 2 *producing and exchanging information*

Aspect 2.1: Transforming information;

Aspect 2.2: Creating information;
Aspect 2.3: Sharing information; and

Aspect 2.4: Using information safely and securely

Assessing Student CIL

Module	Description and Large Task
After-school exercise	Students set up an online collaborative workspace to share information and then select and adapt information to create an advertising poster for the after-school exercise program.
Band competition	Students plan a website, edit an image, and use a simple website builder to create a webpage with information about a school-band competition.
Breathing	Students manage files and evaluate and collect information to create a presentation to explain the process of breathing to eight- or nine-year-old students.
School trip	Students help plan a school trip using online database tools and select and adapt information to produce an information sheet about the trip for their peers. The information sheet includes a map created using an online mapping tool.

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Reporting CIL Achievement

- Rasch IRT
 - 500 (the *ICILS average score*) and a standard deviation of 100
 - Equally weighted national samples

L4 Evaluate the reliability of information based on its content and probable origin, create information products targeted for audience and purpose

Precision, efficiency and control when gathering information or creating information products

L3 Work independently using computers as information-gathering and management tools, recognize the nature and quality of information reflects the characteristics of people who created it

Critical perspective and autonomy when gathering information or creating information products

L2 Complete basic and explicit information gathering and management tasks, simple information products that show consistency of design, and show awareness of mechanisms for protecting personal information

Search for and locate information, plan use of information when creating information products

L1 Demonstrate familiarity with the basic range of software commands, recognize potential for misuse of computers

ICILS Next steps

- **November 20, 2014 10 a.m. CET**
 - Release of ICILS International Report in the European Union conference centre Albert Borschette in Brussels
- **March 2015**
 - Release of Technical Report and International Database
 - International Database training (Poland)

ICILS in the Future

- ICILS trend study (2018) in planning
 - Internet delivery (where feasible)
 - Broader range of devices
 - Extend range of software contexts such as:
 - Collaborative environments
 - Crowdsourcing
 - Tablet contexts including apps.
 - Animation/multimedia
 - Degree of change and innovation depends on number of countries
 - Plans for framework revision and planning to begin in 2015

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Results

**UNDER EMBARGO UNTIL 20 NOVEMBER
RELEASE**

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Thank you

Questions