International Computer Information Literacy Study Progress Report

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International Context (some recent examples)

- Digital Literacy – European Commission
- Assessment and Learning of 21st Century Skills
- Completed 2008 Cycle of ICT Literacy (Australia)
- PIRLS & TIMSS Web-based
- Electronic Reading Assessment (PISA)
- Problem solving in rich technology (PIAAC)

Computer and Information Literacy

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 & managing information

Aspects

Knowing & understanding computer use

Accessing & evaluating information

Managing information

Strand 2

Producing & exchanging information

Aspects

Transforming information

Creating information

Sharing information

Summary Research Questions

1. What variations exist between countries, and within countries, in student computer and information literacy?
2. What aspects of schools and education systems are related to student achievement in computer and information literacy?
3. What characteristics of students' technological backgrounds are related to student achievement in computer and information literacy?
4. What individual/personal student characteristics are related to student achievement in computer and information literacy?

ICILS Instruments: Student test

- Computer based
- Three 30 minute modules
- Each student completes two modules
- Fully balanced rotated design
- Authentic tasks: small and large
- Emulated and ‘live’ software applications

ICILS Instruments: Student and teacher questionnaires

- Student questionnaire
  - Background characteristics
  - Computer use & attitudes
- Teacher questionnaire
  - Background characteristics
  - Computer use & attitudes to computer use
  - Explicit links to SITES

ICILS Instruments
School and system data

- School questionnaire
  - School characteristics
  - School policies and practices relating to CIL
  - School ICT resources
- National Context Survey
  - System-level policy for ICT in schools
  - System-level practices for ICT in schools

Instrument Delivery

- Teacher, school and system questionnaires
  - Web-delivered online
- Student instruments
  - Four options
    - Internet delivery
    - Portable notebooks
    - Local area network
    - USB drive
  - Mixed mode feasible but costly

Student Instrument Delivery Options

- **Web-delivery**
  - risky, heavily reliant web/network infrastructure and on unpredictable factors; technically feasible in only a small number of countries
- **Portable notebook delivery**
  - extremely robust and reliable, likely to be prohibitively expensive, logistically demanding
- **Local network delivery**
  - robust, relies on goodwill of school network administrators, potentially expensive to administer
- **USB delivery (RECOMMENDED)**
  - **robust, relatively inexpensive, teacher administration feasible**

Population & Sampling

- Population
  - Grade 8
  - Recommended option for Grade 4
- Sample
  - Two stage PPS sample of schools
  - Minimum 150 schools per country
  - 20 students randomly selected from each grade.

Timeline

- **Data collection end 2012 (Southern Hemisphere) and beginning of 2013 (Northern Hemisphere)**
- Mar 2010 – Dec 2010: *Development of framework*
- Jan 2011 – Dec 2011: *Development and pilot of materials*
- Mar 2012 – May 2012: *Field trial*
- Oct 2012 – Dec 2012*: Main survey (Southern Hemisphere)*
- Mar 2013 – May 2013: *Main Survey (Northern Hemisphere)*
- **Jun 2014:** *International report*
- Nov 2014: *Database and technical report*

Invitations to participate
(including participation fees and a basis for estimating national administration costs)
will be sent from IEA soon.

Responses due in early 2010