ICILS Field Trial Report

IEA General Assembly

October 9, 2012

Phuket, Thailand

ICILS Background: CIL

Computer and information literacy (CIL) refers to 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	**Strand 2**
Collecting and managing information	*Producing and exchanging information*
Aspect 1.1 Knowing about and understanding computer use	**Aspect 2.1** Transforming information
Aspect 1.2 Accessing and evaluating information	**Aspect 2.2** Creating information
Aspect 1.3 Managing information	**Aspect 2.3** Sharing information
	Aspect 2.4 Using information safely and securely

ICILS Background
Summary Research Questions

1. What variations exist between countries, and within countries, in student computer and information literacy?

2. What individual/personal student characteristics 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 aspects of schools and education systems are related to student achievement in computer and information literacy?

ICILS: Progress until now

- 2010: Project initiation – framework, field operations and preliminary instrument development (in consultation with NRCs and experts)

- 2011: Project consolidation – confirmation of field trial instruments and operations (in consultation with NRCs and experts)

ICILS: Progress until now

INSTRUMENTS

- Student test of CIL: four sets of authentic tasks each taking 30 minutes
- Student questionnaire: 20 minutes completed on computer
- Teacher, Principal, ICT-coordinator questionnaires: (15-20 minutes completed online or on paper
- National contexts survey: completed online through national centers

ICILS: Progress until now

OPERATIONS

- Five separate operations manuals with additional supplementary materials

- Additional software interface manuals

- Individual school preparation for computer-based delivery including software, surveys and support from NRCs and the ISC

ICILS: Progress until now

FIELD TRIAL DATA COLLECTION (Feb to May 2012)

- 20 countries collected f/t data
- Australia, Canada, Switzerland, Chile, Czech Republic, Denmark, Spain, Hong Kong SAR, Croatia, Israel, Republic of Korea, Lithuania, Netherlands, Norway, Poland, Russian Federation, Slovak Republic, Slovenia, Thailand and Turkey (& Germany to come)

Secretariat

The Australian Council *for* Educational Research

ICILS: Progress until now

FIELD TRIAL DATA COLLECTION (Feb to May 2012)

- ~ 8,900 students
- ~ 6000 teachers
- ~ 500 school principals
- ~ 500 school ICT-coordinators
- ~ 500 schools

Secretariat

The Australian Council *for* Educational Research
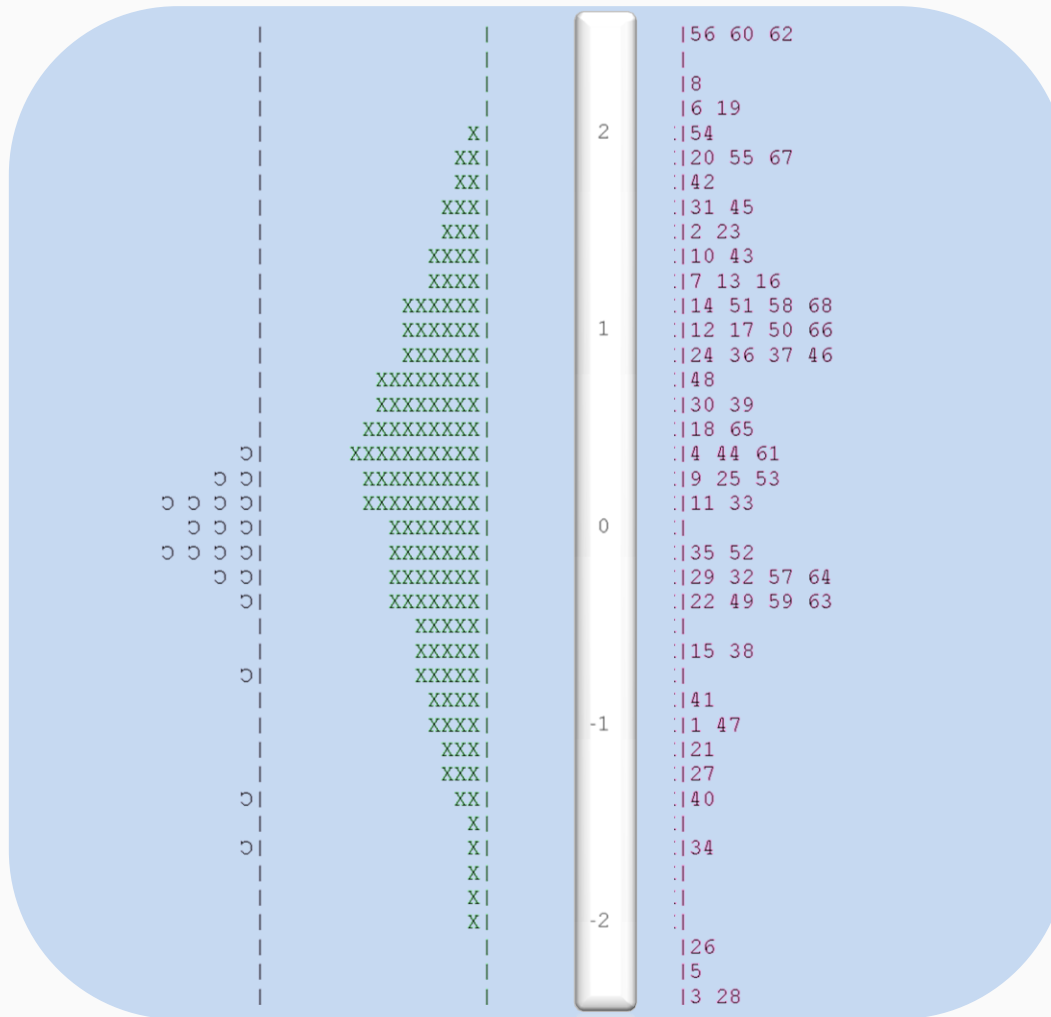
ICILS: Progress until now

FIELD TRIAL OUTCOMES

- Instruments have "worked"
  - Test: Reliability 0.89
  - Other quality measures (e.g. bias analyses) also good

ICILS: Progress until now

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FIELD TRIAL OUTCOMES

- Instruments have "worked"
  - Test: 0.89
  - Other quality measures (e.g. bias analyses, test length analyses) also good
  - Questionnaires: Anticipated scales performed as predicted

The Australian Council *for* Educational Research

ICILS: Progress until now

NRC Meeting – Brig Switzerland September 2012

Secretariat

The Australian Council *for* Educational Research

ICILS: Progress until now

- NRCs presented with field trial outcomes
- Analysis reports for all instruments
  - Summary descriptive data
  - IRT Scales
  - Factor analyses
  - Bias analyses
  - National reports of data
- Reviewed content of survey activities questionnaire

ICILS: Progress from now on

OPERATIONS

- Delivering on non-Windows systems
  - Student instruments to run on:
    - Standalone or networked Windows computers
    - Networked computers regardless of operating system
- Translation system refinements
  - Speed, performance and processes
- Streamlined processes for Test Administrators
- Three of five survey operations procedures manuals released yesterday (October 8)

ICILS: Progress from now on

INSTRUMENTS

- Test
  - All four modules to be used in main survey – some minor changes to a few items and scoring guides
  - To be released this Friday (October 12) for main survey preparation

- Questionnaires
  - Largely being administered as used in the field trial - some minor changes
  - Released Monday October 8 for main survey preparation

Summary Timeline

- October 2012:   Release of main survey materials
- November 2012:   Field operations and scorer training
- February to April 2013:   Main survey data collection (Northern Hemisphere)
- October to November 2013: Main survey data collection (Southern Hemisphere)
- July 2014:   NRC Meeting 5 (International report review (and release of data to participating countries)
- November 2014:   Release of international report
- March 2015:   Release of ICILS database, Technical Report & ICILS User Guide