PIRLS 2021
20 Years of PIRLS
Implementing the Data Collection

Ina V.S. Mullis, Michael O. Martin, & Matthias von Davier

62nd IEA General Assembly
October 2021
Transitioned to Digital Assessment

18 Engaging Reading Passages
Matching digitalPIRLS and paperPIRLS versions

6 Newly Developed -- Visually Attractive

12 Trend – Also Visually Attractive

• Literary passages – variety of stories
• Informational passages – variety of content and ideas
ePIRLS in 2021

- ePIRLS launched in 2016 with 14 countries to reflect the changing nature of reading
- Simulates authentic internet reading experience
- 5 ePIRLS tasks – 3 trend and 2 newly developed
- Operationally integrated with digitalPIRLS in 2021
- In 2021, some digitalPIRLS students will take both a PIRLS passage and an ePIRLS task for research purposes (and those countries also have the paperPIRLS bridge)
Finally, after its three-year journey and many hardships, the Victoria arrived back in Spain with only 21 sailors on board. The ship was leaking badly and the crew was starving. However, the people who paid for the expedition sold the spices for a profit.

Most importantly, the Victoria had circled the globe and demonstrated that the world was a much larger place than previously imagined.
Also, in 2021

- Context Questionnaires
  - Home
  - School
  - Teacher
  - Student
New PIRLS 2021 Group Adaptive Design for digital and paper

**Goal:** Improve measurement by better alignment of assessment difficulty with student ability

The assessment should match the ability of targeted population

- Include more challenging content for advanced students (address any ceiling effect)
- Include less challenging content for weaker students (address any floor effect)
Group adaptive design applies to both digital PIRLS and paper PIRLS

- Three levels of passage difficulty
  - Difficult (6) – Medium (6) – Easy (6)
- Passages combined into two levels of booklet difficulty
  - More difficult booklets (9)
    - Composed of difficult and medium passages
  - Less difficult booklets (9)
    - Composed of medium and easy passages
Design Essentials

All countries administer all 18 booklets

• Higher performing countries:
  – Proportionally more of the more difficult booklets

• Lower performing countries:
  – Proportionally more of the less difficult booklets

Goal is a better match between assessment difficulty and student achievement in each country
PIRLS 2021 Countries

Albania
Australia
Austria
Azerbaijan
Bahrain
Belgium (Fl.)
Belgium (Fr.)
Bosnia and Herzegovina
Brazil
Bulgaria
Canada
Chile
Chinese Taipei
Croatia
Cyprus
Czech Republic
Denmark
Egypt
England
Finland
France
Georgia
Germany
Hong Kong SAR
Hungary
Ireland
Israel
Italy
Jordan
Kazakhstan
Kosovo
Kuwait
Latvia
Lithuania
Macao SAR
Malta
Montenegro
Morocco
Netherlands
New Zealand
North Macedonia
Northern Ireland
Norway
Oman
Poland
Portugal
Qatar
Russian Federation
Saudi Arabia
Serbia
Singapore
Slovak Republic
Slovenia
South Africa
Spain
Sweden
Turkey
United Arab Emirates
United States
Uzbekistan

Benchmarking Participants

Ontario, Canada
Quebec, Canada
Moscow City, Russia
Republic of Srpska
South Africa 6th grade
Abu Dhabi, UAE
Dubai, UAE

60 countries
+ 7 Benchmarkers

Evenly Balanced
Digital: 28 + 5
Paper: 32 + 2
Original Data Collection Schedule

- October-December 2020 Southern Hemisphere
  - 2 Completed and 4 postponed
- March-June Northern Hemisphere
  - 36 Implemented and 16 postponed
- Implemented – approximately half digital/half paper
For Countries on the Original Schedule

- Implemented sampling plan
- Prepared manuals (all countries)
- Conducted translation verification
- Conducted Layout Verification
  - paperPIRLS, digitalPIRLS, bridge sample
- Prepared players (digitalPIRLS)
- Quality control monitors
- Data received from 27 countries
  - 18 at IEA Hamburg, 9 at TIMSS & PIRLS ISC
Delayed Data Collection Schedule

• October-December 2021 Southern Hemisphere (1 year late)
  – 4 countries (3 underway)

• October-December 2021 5th Grade Northern Hemisphere - same cohort of Fourth Grade students but in the fall
  – 16 countries (8 underway)

• March-June 2022 (1 year late)
  – 2 countries
Current and Upcoming Schedule

• June 2021 -- Data Processed 2 Southern Hemisphere Countries
• December 2021 -- Data Processed 38 Countries
• April 2022 -- Data Processed from Oct-Dec Data Collection (Northern and Southern Hemispheres)
• December 2022 Report Released as Planned
Heroic Efforts of Countries

• Rescheduling sessions in schools
• Rescheduling QCM sessions
• Rescheduling the rescheduled sessions and visits
Comparability of Samples

• Adjudicate and annotate participation as usual

• High standards
  – at least 85% school participation and 85% student participation (or 75% combined)

• Document when annotation unavoidable due to COVID-19

• First chapter of international report to document the challenges of data collection during the pandemic
Information about Disruptions due to COVID-19

• School Questionnaire
  – Number of days schools closure
  – Remote instruction—types of support

• Teacher Questionnaire
  – Number of students impacted by disruptions

• Home Questionnaire
  – If child’s school was closed, negative impact on learning
Section in PIRLS 2021 Encyclopedia

Country’s Response to COVID-19

• Impact on teaching and learning
  – Degree of school closures
  – Efforts to support remote learning, online instruction, printed materials
  – Resources provided to teachers and students
  – National efforts to evaluate or compensate for disruptions in learning
Section in PIRLS 2021 Encyclopedia
Country’s Response to COVID-19 (-cont.)

• Impact on data collection procedures for PIRLS 2021
  – Degree of school non-participation because of COVID
  – Degree within-class participation impacted by COVID

• NRC survey on impact on
  – Data collection schedule, national quality control, human scoring, and any departures from standard procedures
Comparability of Achievement Data

Trends in achievement data

- Countries will need to consider in light of
  - Participation rates
  - School closures
  - Remote learning initiatives
  - Parents’ reports
  - Teachers’ reports
Comparability of Context Questionnaire Data

• School data
• Teacher data
  10 countries assessing 5th grade, will locate 4th grade teachers
• Student attitude data
PIRLS 2021 Provides Unique Data During Pandemic

• Usual excellent data on student reading achievement
  - digitalPIRLS and paperPIRLS on same scale

• Usual extensive array of context questionnaire information

Also have

• Extensive data about school closures
• Countries and schools efforts to compensate for COVID impact
PIRLS 2021
20 Years of PIRLS
Implementing the Data Collection

Ina V.S. Mullis, Michael O. Martin, & Matthias von Davier

62nd IEA General Assembly
October 2021