

# PIRLS 2011

## Assessment Frameworks and Field Test Development

Ina V.S. Mullis and Michael O. Martin

50<sup>th</sup> IEA General Assembly

Tallinn, 5-8 October, 2009

# PIRLS 2011

- Assessment of reading comprehension
- Grade 4
  - 3<sup>rd</sup> PIRLS cycle; trends for 2006 and 2001 participants
  - Baseline data for new countries
- prePIRLS – less difficult version of PIRLS
  - To align with curricula and involve more countries

# Countries Planning to Participate

Armenia	Germany	Oman
Australia	Honduras (P)	Poland
Austria	Hong Kong SAR	Qatar
Azerbaijan	Hungary	Romania
Belgium Fr.	Indonesia (P)	Russian Federation
Botswana (P)	Iran (P)	Scotland
Bulgaria	Israel	Serbia
Canada	Italy	Singapore
Chinese Taipei	Kuwait (p)	Slovak Republic
Colombia (P)	Libya (P)	Slovenia
Croatia	Lithuania	South Africa (P)
Czech Republic	Luxembourg	Spain
Denmark	Malta	Sweden
Egypt (P)	Mongolia	United Arab Emirates
England	Morocco	Ukraine
Finland	Netherlands	United States
France	New Zealand	
Georgia	Norway	

*Almost all in TIMSS!*

# **RDG (Reading Development Group)**

**Jan Mejdning** (Denmark)

**Sue Horner** (England)

**Elinor Saigh-Haddad** (Israel)

**Pierre Reding** (Luxembourg)

**Galina Zuckerman** (Russian Federation)

**Elizabeth Pang** (Singapore)

**Caroline Liberg** (Sweden)

**Elois Scott** (United States)



# QDG (Questionnaire Development Group)

**Hwawei Ko** (Chinese Taipei)

**Marc Colmant** (France)

**Knut Schwippert** (Germany)

**Megan Chamberlain** (New Zealand)

**Ragnar Solheim** (Norway)

**Abdessalem Bouslama** (Qatar)

**Sarah Howie** (South Africa)

**Valena Plisko** (United States)

# PIRLS 2011 Assessment Specialists

**Ann Kennedy**

PIRLS Coordinator

**Katie Trong**

prePIRLS Coordinator

**Marian Sainsbury, NFER**

Reading Coordinator

**Patricia Donahue, ETS**

Reading Assessment Consultant

**Julian Fraillon, ACER**

Reading Assessment Consultant

## 2008 Review of First Year's Activities

- Feb. 1<sup>st</sup> NRC meeting, Madrid
  - Plan and review passages
- Jul. 1<sup>st</sup> RDG meeting, Amsterdam
  - Update framework and review passages
- Nov. 2<sup>nd</sup> NRC meeting, Amsterdam
  - Selected field-test passages and developed items
  - Reviewed web-based reading initiative
- Nov. 1<sup>st</sup> QDG meeting, Amsterdam
  - Updated *PIRLS 2011 Contextual Framework*



## 2<sup>nd</sup> PIRLS 2011 RDG Meeting March 2009, Singapore

- Reviewed and revised 8 passages with items and scoring guides for field test – 120 items
- Made suggestions for the set of field test items for NRC review
- Reviewed and revised initial set of 10 prePIRLS passages with items and scoring guides for field test
- Reviewed and revised one web-based reading activity with items and scoring guides



# Meanwhile...

## PIRLS Participation Became TIMSS and PIRLS Participation

### Fourth grade

- TIMSS and PIRLS: 42-45 countries
- TIMSS only: 8-10 countries
- PIRLS only: 5-6 countries
- prePIRLS: 10-12 countries

### Eighth grade

- TIMSS: 50+ countries

# Implications for 2011

- Central organizing strategy: **joint effort** at fourth grade
- Same students for TIMSS and PIRLS in almost all countries (35+)
- Also needed to address
  - PIRLS only and TIMSS only
  - prePIRLS
  - TIMSS eighth grade

## Consequences for Overall Assessment Approach

- Sampling
- Assessment administration
- Schedule
- Communication
- Analysis and Reporting
  - Additional PIRLS-TIMSS report for countries assessing same students



## Had Particular Impact on Questionnaires at Fourth Grade

Will be assessing **Reading, Mathematics,** and **Science** with

- Same schools, same teachers, same students, same parents
- Need to avoid redundancy and duplication in data collection effort

# Same Overarching Contextual Frameworks

## TIMSS 2011

- National and Community Contexts
- School Contexts
- Classroom Contexts
- Student Characteristics and Attitudes

## PIRLS 2011

- National and Community Contexts
- Home Contexts
- School Contexts
- Classroom Contexts
- Student Behaviors and Attitudes

# Challenge for Fourth Grade Questionnaires in 2011

- **Maximize** opportunity for comparison across the three subject areas
  - Reading, Mathematics, and Science
- **Minimize** questionnaire response burden on
  - Students, teachers, principals, parents



# Modular Strategy for 2011

## Modules for Student and Teacher Questionnaires

- Both TIMSS and PIRLS: e.g., students' demographics and home background, school climate for learning; teachers' characteristics, education level, and responsibilities
- Separate: e.g., students' attitude toward subject, classroom activities in subject, homework, out-of-school reading; teachers' topics taught, instructional activities, etc.

# Modular Strategy for 2011 (cont.)

## School Questionnaire

- Single combined TIMSS and PIRLS questionnaire: school characteristics, climate, and resources

## Home Questionnaire

- Single questionnaire for PIRLS and TIMSS, essentially the PIRLS questionnaire: home environment, parents' reading activities, and children's early literacy activities, with additional section about children's early numeracy activities and skills

## 2<sup>nd</sup> PIRLS 2011 QDG Meeting April 2009, Munich

- Joint meeting with TIMSS 2011 Questionnaire Item Review Committee (QIRC)
- Finalized Contextual Framework outline
- Presented modular questionnaire design to integrate with TIMSS at fourth grade
- Presented draft questionnaires for field test
- Renewed focus on policy relevant constructs
- Worked intensively to update questionnaires



# Updating the Questionnaires

Focused on addressing **effective** contexts for teaching and learning in developing new scales

- Validation process
  - Grounded in literature
  - Conceptual integrity
  - Related to achievement
  - Rigorous measurement

## Updating the Questionnaires (cont.)

- **Out:** “laundry lists” of attributes and activities
  - e.g., instructional practices
- **In:** scales of effective learning contexts
  - at home, in the classroom, at school
- Field testing 10 new indices of effective learning (e.g., student engagement, learning prerequisites)

# 2011 An Excellent Opportunity

- Advance our thinking
  - Operationally
  - Substantively
  - Empirically
- Enhance our data



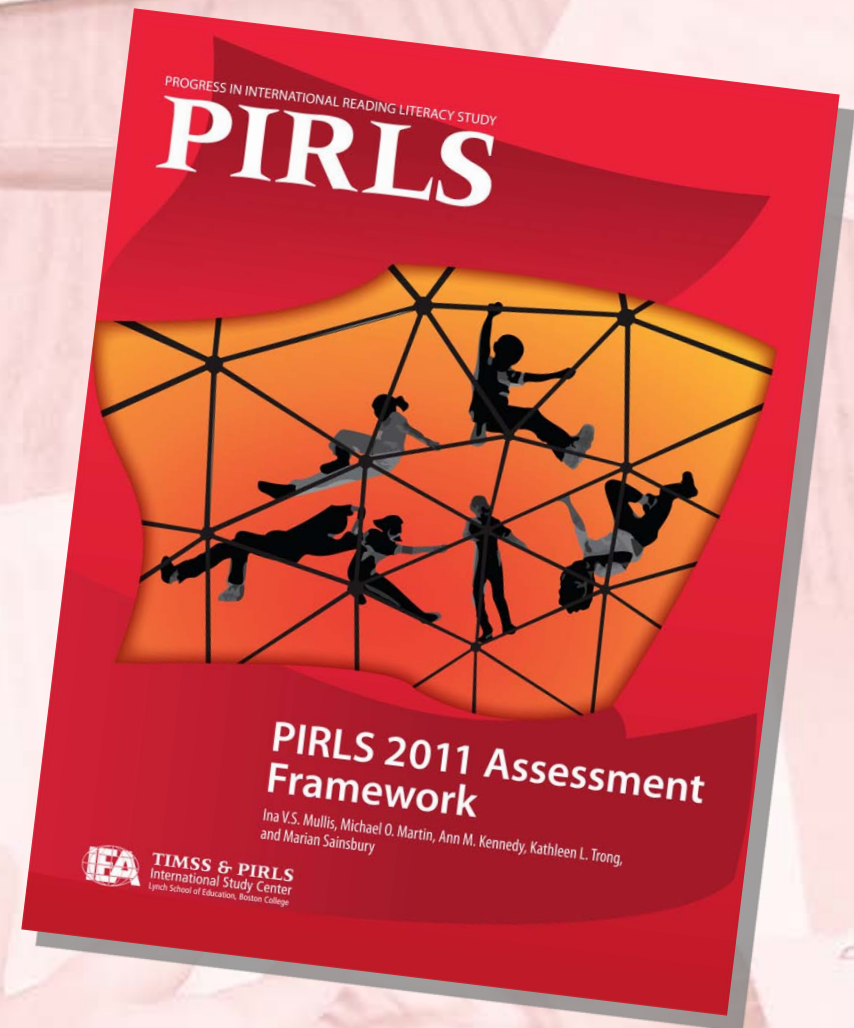
# 3<sup>rd</sup> PIRLS 2011 NRC Meeting

## June 2009, Vilnius

- Final review *PIRLS 2011 Assessment Framework*
- Reviewed all field test passages, items, scoring guides for PIRLS and prePIRLS
- Reviewed revised field test questionnaires
- Presented an overview of the survey operations procedures for administering PIRLS and TIMSS in 2011 and the field test
- Decided to suspend development of web-based reading assessment until PIRLS 2016

# PIRLS 2011 Assessment Framework

Published,  
August 2009



# PIRLS Reading Comprehension Assessment Framework

## Purposes for Reading

- Literary experience (50%)
- Acquire and use information (50%)

## Process of Comprehension

- Focus on and retrieve explicitly stated information (20%)
- Make straightforward inferences (30%)
- Interpret and integrate ideas and information (30%)
- Examine and evaluate content, language, and textual elements (20%)



# prePIRLS - Same Framework with Different Emphases on Processes

## Purposes for Reading

- Literary experience (50%)
- Acquire and use information (50%)

## Process of Comprehension

- Focus on and retrieve explicitly stated information (50%)
- Make straightforward inferences (25%)
- Interpret and integrate ideas and information **AND** Examine and evaluate content, language, and textual elements (25%)

# Scope of PIRLS 2011 Assessment

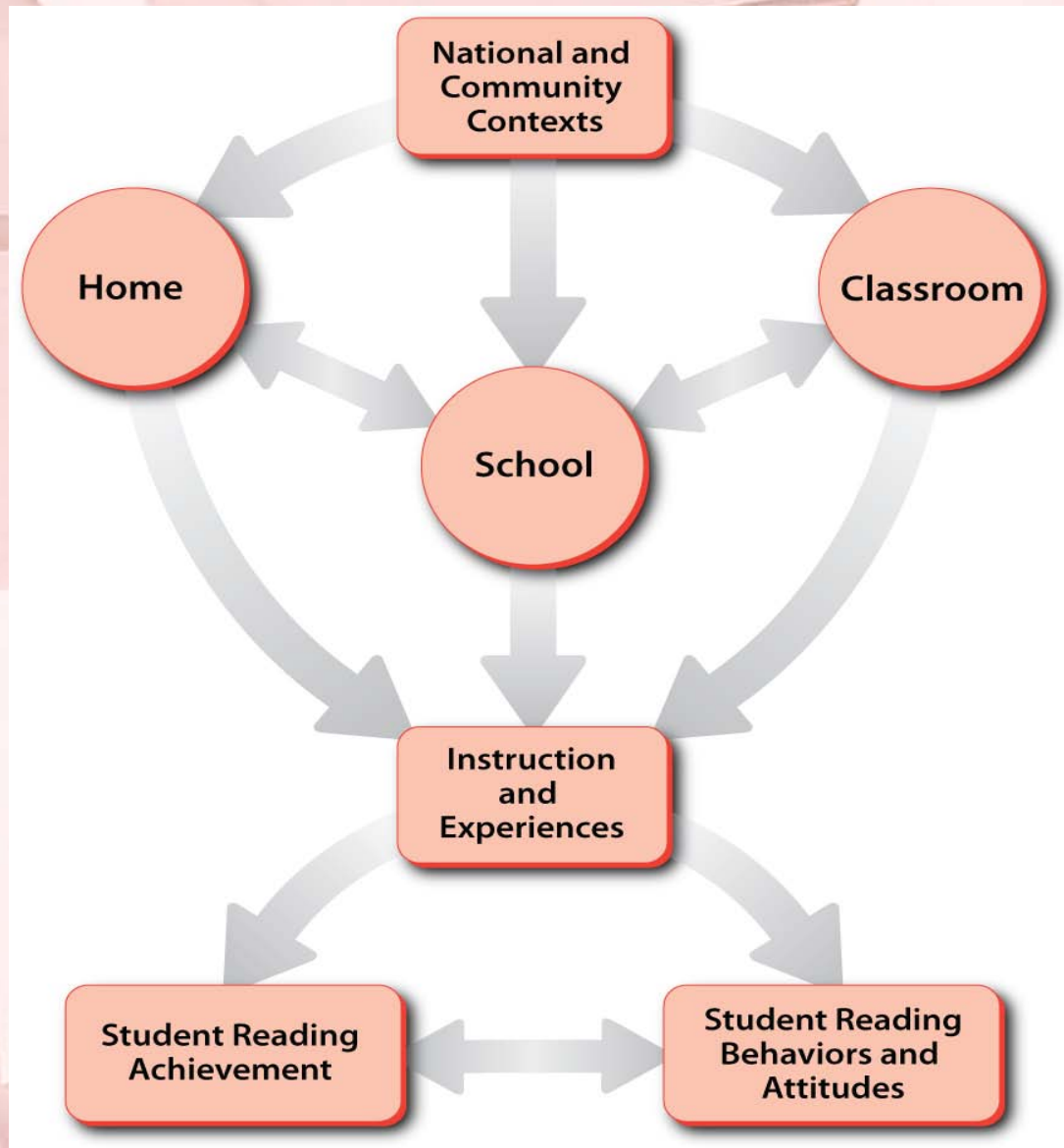
- 10 reading passages
- Total Assessment Time
  - 6 hours, 40 minutes
- Assessment Time per Student
  - 80 Minutes
  - Two 40-minute Sessions with Break
  - One Passage per Session
- 13 booklets in total

# Scope of prePIRLS Assessment

- prePIRLS based on PIRLS Reading Comprehension Framework and design
  - Literary and informational passages (6 passages)
  - Shorter passages (300-400 words)
  - Focuses on retrieval and straightforward inferencing
  - Items distributed throughout text
  - Same assessment time per student as PIRLS
- Same background questionnaires as PIRLS



# Contextual Framework for Developing Children's Reading Literacy



# National and Community Contexts

- Languages and emphasis on literacy
- Demographics and resources
- Organization and structure of the education system
- The reading curriculum in the primary grades

## Home Contexts

- Economic, social, and educational resources
- Parental emphasis on literacy development
- Parents' reading behaviors and attitudes



## School Contexts

- School characteristics
- School organization for instruction
- School climate for learning
- School resources
- Parental involvement

## Classroom Contexts

- Teacher education and development
- Teacher characteristics and attitudes
- Classroom characteristics
- Instructional materials and technology
- Instructional strategies and activities
- Assessment

# Student Characteristics and Attitudes

- Student reading literacy behaviors
- Positive attitudes toward reading
- Student attitudes toward learning to read



# Scope of PIRLS 2011 Assessment

## Questionnaires:

- Parents
- Students
- Teachers (new online option)
- Schools (new online option)
- Curriculum (online)

Encyclopedia – Chapter for Each Country

## Preparing for the Field test - 2010

July – Posted all PIRLS 2011 field test passages and items on web

Sept – Began field test translation and layout verification

Sept – Posted field test questionnaires for review

October – Posted final field test questionnaires

December – Post prePIRLS field test passages and items

January – 4<sup>th</sup> NRC meeting, London, to conduct constructed-response scoring training for field test

# Upcoming Schedule Highlights

**2010**

March 1 - April 15

**\*\*\* Conduct Field Test \*\*\***

May 15

**All field test data to IEA DPC**



# Upcoming Schedule Highlights

## 2010

- June 3<sup>rd</sup> RDG meeting to review field test results and recommend assessment items
- July 3<sup>rd</sup> QDG meeting with TIMSS QIRC to review field test results and recommend questionnaires

# Upcoming Schedule Highlights

## 2010

- July 5<sup>th</sup> NRC meeting, Zagreb, to agree on assessment items and scoring guides
- August Assessment items and scoring guides finalized and distributed to NRCs

# Upcoming Schedule Highlights

**\*\*\* Data Collection \*\*\***

**October-December 2010**

Southern Hemisphere

**March-June 2011**

Northern Hemisphere

**\*\*\* Data Collection \*\*\***



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