Progress Since Last General Assembly...

- Assessment Frameworks Completed
  - TIMSS 2015 and TIMSS Advanced 2015
  - TIMSS Numeracy – *New* for fourth grade!

- Developed 1250 mathematics and science field test items – help from ACER

- Updated questionnaires for TIMSS and TIMSS Advanced
  - School, Teacher, Student

- *New* – Home Questionnaire for fourth grade

- Sampling and operations under way
Countries Participating in TIMSS 2015

Armenia 4, 8
Australia 4, 8
Austria 4
Bahrain 4, 8
Belgium (Flemish) 4
Botswana 6, 9
Bulgaria 4
Canada 4, 8
Chile 4, 8
Chinese Taipei 4, 8
Croatia 4, Numeracy
Cyprus 4
Czech Republic 4
Denmark 4
Egypt 8
England 4, 8
Finland 4
France 4, A
Georgia 4, 8, A
Germany 4, A
Hong Kong SAR 4, 8
Hungary 4, 8
Iran, Islamic Rep. of 4, 8, A
Ireland 4, 8
Israel 8
Italy 4, 8, A

Japan 4, 8
Jordan 8
Kazakhstan 4, 8
Korea, Rep. of 4, 8
Kuwait 4, 8
Lebanon 8, A
Lithuania 4, 8
Macedonia 8
Malaysia 8
Malta 4
Morocco 4, 8
The Netherlands 4
New Zealand 4, 8
Norway 4/5, 8/9, A
Oman 4, 8
Palestinian Nat’l Auth. Num, 8
Poland 4
Portugal 4, A
Qatar 4, 8
Russian Federation 4, 8, A
Saudi Arabia 4, 8
Singapore 4, 8
Slovak Republic 4
Slovenia 4, 8, A
South Africa 9
Spain 4

Sweden 4, 8, A
Thailand 8
Turkey 4, 8
United Arab Emirates 4, 8
United States 4, 8, A

Benchmarking Participants
Buenos Aires, Argentina 4
Ontario, Canada 4, 8
Quebec, Canada 4, 8
Abu Dhabi, UAE 4, 8
Dubai, UAE 4, 8
TIMSS 2015 Assessment Frameworks

- Mathematics
  - Fourth grade
  - Eighth grade

- Science
  - Fourth grade
  - Eighth grade

- Context
  Questionnaires

- Assessment Design

- Posted on web
  - Sept 30
TIMSS Advanced 2015 Assessment Frameworks

- Advanced Mathematics
- Physics
- Context Questionnaires
- Assessment Design
- Posting date - Nov 30
Updating the TIMSS 2011 Assessment Frameworks for TIMSS 2015

Goals

• Align the content with current curricula as described in the TIMSS 2011 Encyclopedia

• Improve the Frameworks’ utility as blueprints for developing the TIMSS 2015 assessments

• Work towards coherence among related topics across grades
Began the Updating Process

August – September 2012

• Topic-by-topic analysis of curriculum sections of Encyclopedia chapters

• Review of curricula from high-achieving countries

October – December 2012

• Task force meetings to propose updates
Activities at 1st NRC Meeting
Hamburg, Feb 2013

• Reviewed the draft TIMSS 2015 Assessment Frameworks
• Discussed updates to TIMSS Advanced
• Reviewed the TIMSS 2011 Questionnaires and Context Scales
• Began thinking about national plans for sampling and data collection
• Considered new initiatives and improvements
  – TIMSS Numeracy
  – Computer-based TIMSS
After 1st NRC Meeting – NRC Online Review of Frameworks

• Incorporated recommended changes to draft TIMSS and TIMSS Advanced assessment frameworks
• Posted online survey for updating frameworks
• NRCs completed by March 21
• Updated draft Frameworks for SMIRC review
1st TIMSS 2015 Meeting of Science and Mathematics Item Review Committee (SMIRC)

Apr 16-19    Oslo, Norway

- Refined TIMSS and TIMSS Advanced frameworks for final NRC review
- Reviewed *TIMSS 2015 Item Writing Guidelines*
- Developed prototype items for field test
TIMSS 2015 SMIRC

Mathematics Experts
Kiril Bankov, Bulgaria
Sean Close, Ireland
Khattab Mohammad Ahmad Abu Libdeh, Jordan
Sun Sook Noh, Korea
Torgeir Onstad, Norway
Mary Lindquist, United States
Liv Sissel Gronmo, Chief Mathematics Consultant
TIMSS 2015 SMIRC

Science Experts

Jouni Viiri, Finland
Alice Siu Ling Wong, Hong Kong SAR
Berenice Michels, Netherlands
Gabriela Noveanu, Romania
Galina Kovaleva, Russian Federation
Vitaly Gribov, Russian Federation
Wolfgang Dietrich, Sweden
Christopher Lazarro, United States
Gerry Wheeler, United States
Lee Jones, Chief Science Consultant
Activities at 2nd NRC Meeting, Amsterdam, May 2013

• Finalized the *TIMSS 2015 Assessment Frameworks* for mathematics and science at 4th and 8th grades

• Finalized the *TIMSS Advanced 2015 Assessment Frameworks* for advanced mathematics and physics

• Reviewed the draft *TIMSS 2015 Context Questionnaire Framework*

• Previewed sampling and operations for the field test
Activities at 2nd NRC Meeting, Amsterdam (cont.)

- Discussed *TIMSS 2015 Item Writing Guidelines*
- Formed teams, assigned objectives, and...

**Developed items and scoring guides!**
Number of TIMSS 2015 Items Developed for Field Test

Fourth grade
- Mathematics 160; science 160
- Numeracy 200

Eighth grade
- Mathematics 200; science 270

TIMSS Advanced
- Advanced mathematics 130; physics 130

Total – 1250 items!!
1st TIMSS 2015 QIRC Meeting

June 24-25    Singapore

- Joint meeting with PIRLS 2016 Questionnaire Development Group (QDG)
- Updated questionnaires for TIMSS 2015
- Reviewed properties of context questionnaire scales from 2011 and suggested improvements
- Considered new scales for 2015
TIMSS 2015 Questionnaire Item Review Committee (QIRC)

Sue Thomson, Australia
Josef Basl, Czech Republic
Wilfried Bos, Germany
Martina Meelissen, Netherlands
Chew Leng Poon, Singapore
Peter Nystrom, Sweden
Stephen Provasnik, United States
Task Force Meetings to Review Field Test Items, Boston, July

Extensive review and revision of draft items
- Fourth grade: mathematics, numeracy, science
- Eighth grade: mathematics, science
- TIMSS Advanced: advanced mathematics, physics
Field Test Item Review Task Force Meetings, July

• Science Task Force
  – Lee Jones, Chief Science Consultant
  – Gerald Wheeler, SMIRC
  – Ron Martin, ACER
  – Victoria Centurino

• Mathematics Task Force
  – Liv Sissel Gronmo, Chief Mathematics Consultant
  – Mary Lindquist, SMIRC
  – Torgeir Onstad, SMIRC
  – Ray Philpot, ACER
  – Alka Arora, Ina Mullis
Online Review of TIMSS 2015 Field Test Context Questionnaires

- August – draft questionnaires posted for NRC online review

- September/October – TIMSS & PIRLS International Study Center revises context questionnaires for NRC review at 3rd NRC meeting in Budapest, November
2nd TIMSS 2015 SMIRC Meeting

September 9-12    St. Petersburg

Extensive review and revision of draft items

• Fourth grade: mathematics, numeracy, science
• Eighth grade: mathematics, science
• TIMSS Advanced: advanced mathematics, physics
Upcoming Schedule Highlights

2013

Oct 28-31  IEA DPC conducts data entry training seminar for field test

Oct 31    Post field test materials for review at 3rd NRC meeting
Upcoming Schedule Highlights

2013

Nov 6-8  3rd TIMSS Advanced NRC meeting, Budapest
          Review all field test items and questionnaires

Nov 10-15 3rd TIMSS NRC meeting, Budapest
          Review all field test items and questionnaires
Upcoming Schedule Highlights

2013

Dec 19  Post field test achievement items and questionnaires for TIMSS and TIMSS Advanced
Translation and layout verification begin

March 1 – April 15

*** Conduct TIMSS 2015 Field Test ***
TIMSS 2015
20 Years of Trends

Progress Report

Ina V.S. Mullis and Michael O. Martin

Executive Directors
TIMSS & PIRLS International Study Center
Boston College

54th IEA General Assembly
October 2013, Lisbon