

Seven TIMSS Assessments into the Field

TIMSS and TIMSS Advanced 2015 Progress Report

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55th IEA General Assembly

October 2014, Vienna

**TIMSS
2015**



TIMSS & PIRLS
International Study Center
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Progress Since Last General Assembly...

Completed development of seven assessments for TIMSS 2015

- TIMSS Numeracy – New for 2015!
- TIMSS 4TH grade mathematics
- TIMSS 4TH grade science
- TIMSS 8TH grade mathematics
- TIMSS 8TH grade science
- TIMSS Advanced – mathematics
- TIMSS Advanced – physics

TIMSS Numeracy 2015

- Better measurement for countries where many fourth grade students are still developing fundamental skills.
- Countries participating in TIMSS Numeracy will have their results reported on the TIMSS fourth grade mathematics scale.
 - Item blocks in common to link TIMSS Numeracy to the TIMSS scale

Across the Seven Assessments:

1. Finalized achievement items (1,067!) and questionnaires for field test
2. Conducted full scale field test $\approx$ 125,000 students
3. Analyzed field test results and proposed final assessment instruments
4. NRCs reviewed and approved achievement items and questionnaires for 2014/5 data collection

Countries Participating in TIMSS 2015

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

Japan 4, 8
Jordan 8, Num.
Kazakhstan 4, 8
Korea, Rep. of 4, 8
Kuwait 4, 8, Num.
Lebanon 8, A
Lithuania 4, 8
Malaysia 8
Malta 8
Morocco 4, 8, Num.
The Netherlands 4
New Zealand 4, 8
Northern Ireland 4
Norway 4/5, 8/9, A
Oman 4, 8
Palestinian Nat'l Auth. 8, Num.
Poland 4
Portugal 4, A
Qatar 4, 8
Russian Federation 4, 8, A
Saudi Arabia 4, 8, Num.
Singapore 4, 8
Slovak Republic 4
Slovenia 4, 8, A
South Africa 9, Num.
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, 8, Num.
Ontario, Canada 4, 8
Quebec, Canada 4, 8
Abu Dhabi, UAE 4, 8
Dubai, UAE 4, 8
Florida, USA 4, 8

3rd NRC Meetings, Budapest

TIMSS Advanced November 6-8, 2013

TIMSS November 10-15, 2013

- Reviewed draft achievement items for field test
 - TIMSS 4th grade mathematics and science (292 items)
 - TIMSS Numeracy (155 items)
 - TIMSS 8th grade mathematics and science (355 items)
 - TIMSS Advanced mathematics and physics (265 items)
- Reviewed draft questionnaires for field test
 - School, Teacher, Student – all grades
 - Home (4th grade only)
- Finalized national plans for field test sampling and data collection

4th NRC Meetings, Sydney

TIMSS Advanced March 5-7, 2014

TIMSS March 9-14, 2014

- Constructed Response Scoring Training
 - All seven assessments, one by one!
- Sampling, operations, and quality control procedures

Field Test

March 1 – April 15

- 4th Grade
 - 54,678 students in 43 countries & 5 benchmarking entities
- 8th Grade
 - 51,994 students in 37 countries & 4 benchmarking entities
- TIMSS Numeracy
 - 4,522 students in 7 countries
- TIMSS Advanced
 - 11,922 students in 10 countries

3-Step Field Test Review Process

1. Internal review by expert consultants and staff of TIMSS & PIRLS International Study Center – June
2. Review by expert committees – July
 - SMIRC review of achievement items: mathematics, science, and numeracy
 - QIRC review of questionnaires
3. Final review by National Research Coordinators – August
 - 5th NRC meetings, Paris

TIMSS 2015 SMIRC – Science and Mathematics Item Review Committee

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 and Mathematics Item Review Committee

Science Experts

Newman Burdett, England

Jouni Viiri, Finland

Alice Siu Ling Wong, Hong Kong SAR

Berenice Michels, Netherlands

Galina Kovaleva, Russian Federation

Vitaly Gribov, Russian Federation

Gorazd Planinsic, Slovenia

Wolfgang Dietrich, Sweden

Christopher Lazarro, United States

Gerry Wheeler, United States

Lee Jones, Chief Science Consultant

3rd Meeting of TIMSS 2015 SMIRC – Science and Mathematics Item Review Committee

July 15-18, Sofia, Bulgaria

- Concurrent sessions for mathematics and science
- Reviewed proposed items and scoring guides

Outcome: Recommended achievement items for final NRC review

TIMSS 2015 QIRC – Questionnaire Item Review Committee

Sue Thomson, Australia

Josef Basl, Czech Republic

Wilfried Bos, Germany

Martina Meelissen, Netherlands

Chew Leng Poon, Singapore

Peter Nystrom, Sweden

Jack Buckley, United States

2nd Meeting of TIMSS 2015 QIRC – Questionnaire Item Review Committee

July 21-23, Münster, Germany

- Reviewed field test results and proposed questionnaires for TIMSS and TIMSS Advanced questionnaires
 - Student, Teacher, School, Home (4th grade only)
- Reviewed Curriculum Questionnaire and *TIMSS 2015 Encyclopedia* outline

Outcome: recommended questionnaires for final NRC review

5th NRC Meetings, Paris

TIMSS Advanced August 6-8, 2014

TIMSS August 10-15, 2014

- NRCs reviewed and finalized achievement item blocks
 - All seven assessments, item by item!
- NRCs reviewed and finalized home, student, teacher, and school questionnaires
- Sampling plans and operations procedures for the TIMSS 2015 data collection

Finalized Data Collection Instruments

- TIMSS 2015
 - August 28 - posted achievement items and questionnaires for translation by countries
- TIMSS Advanced 2015
 - September 18 – posted questionnaires for translation
 - October 16 (scheduled) – posting of achievement items

Upcoming Schedule Highlights

2014

***** Southern Hemisphere Data Collection *****
October – December

2015

***** Northern Hemisphere Data Collection *****
March – June

March 4-6 6th TIMSS Advanced 2015 NRC
Meeting for scorer training – Prague

March 8-13 6th TIMSS 2015 NRC Meeting for
scorer training – Prague

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