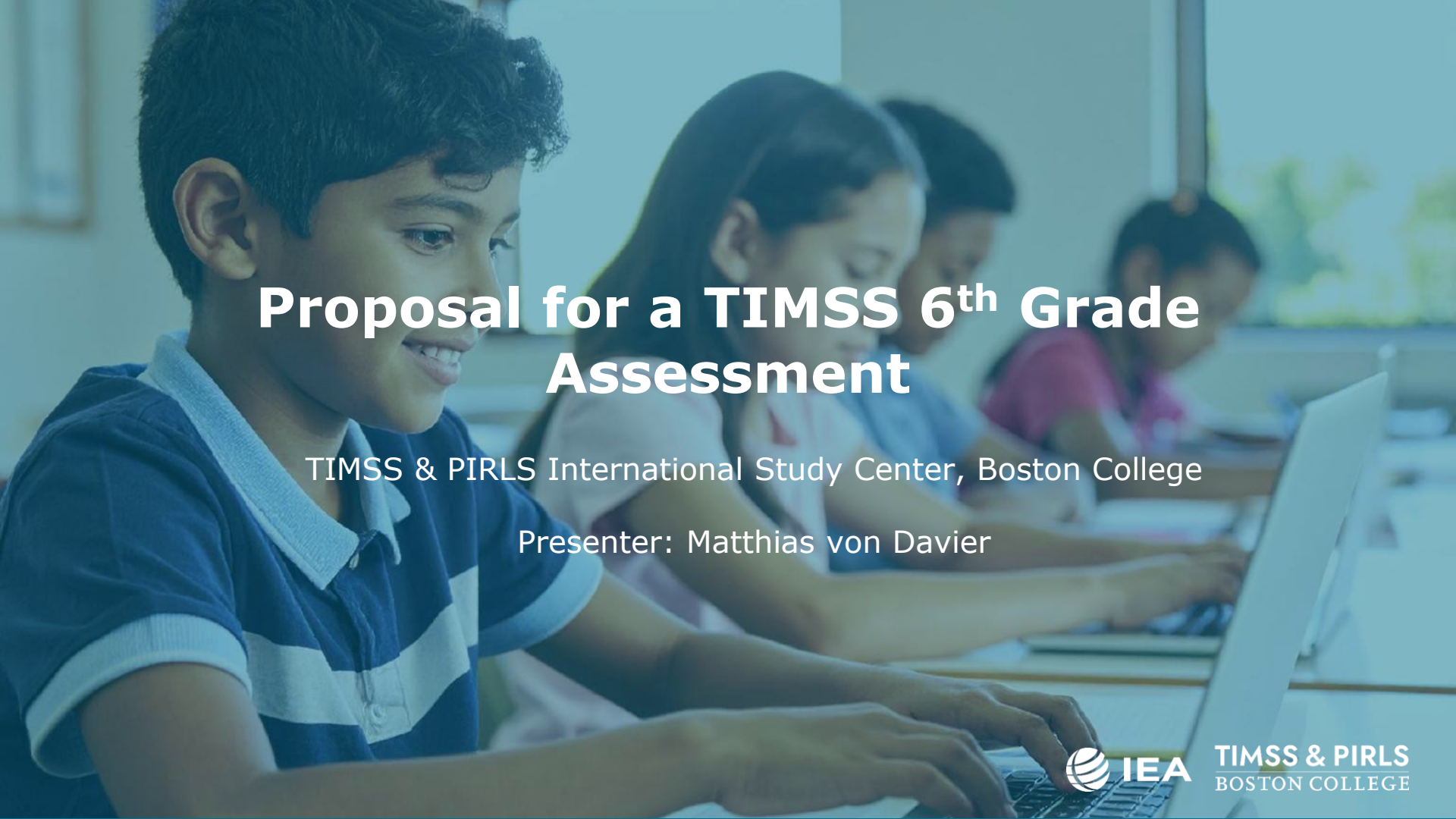


Proposal for a TIMSS 6th Grade Assessment

TIMSS & PIRLS International Study Center, Boston College

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Measuring Achievement Growth in TIMSS

Grade 4 & 8 Dual Assessments

Administering TIMSS at both Grades 4 and 8 is valuable for:

- **Relative / Comparative Trends:**
  Allows comparisons of 4th grade averages over time alongside 8th grade average trends (improve, decline, stable?).
- **International Benchmarks:**
  Enables cross-sectional and trend comparisons of percentages reaching benchmarks over time across countries (not across grades).

Longitudinal Assessment

TIMSS 2023 Longitudinal Study

Provides group-level (girls, boys, SES, etc.) as well as system-level growth information over time.

- **Unified Metric Scale:**
  Data is measured on the same scale, allowing direct exploration of cross grade trends and gains.
- **Direct Score Comparability:**
  Achievement scores are directly comparable over time since the same assessment framework is used.

Expanding the Options for Measuring Growth in TIMSS

Core Objective
A vertical linking study connecting TIMSS Grade 4 and Grade 8 with a Grade 6 cohort would have several benefits:

1. Comparable Psychometric Scale

Enable policymakers to describe how many scale points of growth occurred between Grade 4 and Grade 8 with a comparable metric.

2. Curriculum Progressions

Allow learning progressions to be described in the context of curriculum coverage across grade levels.

3. Cross-Grade Trend Tracking

Track trends by establishing a cross grade scale, and examine where growth may not be uniform across different groups of students.

4. Dual Study Application

A vertical scale linking 4th, 6th and 8th grade can be used for both cross-sectional studies (snapshots) and longitudinal studies (following students over time).

Content for a 6th Grade TIMSS Assessment

Bridging the Gap

More items in TIMSS at both grades in recent cycles allows for a 6th grade assessment to bridge between 4th and 8th grades.

Intersection of Content

Central Idea:

A 6th grade TIMSS assessment would be composed of the intersection of content between the 4th and 8th grades. Framework topics would be selected based on appropriateness for 6th graders.

Curricular Composition

Curricular Analysis:

As a starting point, content covered in the 4th grade difficult blocks and the 8th grade easy blocks would be examined. A thorough framework and curricular analysis will be implemented to match what is in the TIMSS framework to what is taught in 6th grade.

Curriculum Alignment and Framework Review

Strategic Goal

To achieve a properly targeted assessment, we must conduct a rigorous curriculum alignment study and framework review across three critical dimensions.

1. Curriculum Mapping

Framework Alignment

Map the TIMSS 4th and 8th grade assessment frameworks onto the intended curriculum for 6th graders:

- Which 4th grade topics are still relevant and taught at higher grades?
- Which 8th grade topics are introduced in more basic fashion in earlier grades?

2. Appropriateness

Calibrated Difficulty

Ensure the assessment is well targeted and appropriate for 6th grade students.

TIMSS adaptive design provides easy and difficult blocks at 4th and 8th grade. 6th grade blocks can be assembled by selecting appropriate materials.

3. Opportunity to Learn

Targeted Assessment

Ensure the assessment reflects content that 6th grade students have had a reasonable opportunity to learn, preventing disadvantage from untaught topics.

Close cooperation with country experts to align framework is needed.

What Are the Advantages of Participating in a 6th Grade TIMSS Assessment?

Educational Research Value

A scale that spans 4th, 6th, and 8th grade internationally provides a host of outstanding opportunities for educational research, including tracking of equity in student development.

Expected Changes in Proficiency

Growth & Equity Tracking (Examples)

Benchmark Trajectories: Map where advanced or low-performing 4th graders land by 6th and then 8th grade.

SES Development: Monitor educational growth trajectories across low, medium, and high SES households.

Gender Gaps: Evaluate whether performance differences between genders widen or shrink over time.

Global Monitoring Program

Target Alignment with Post-2030 SDGs

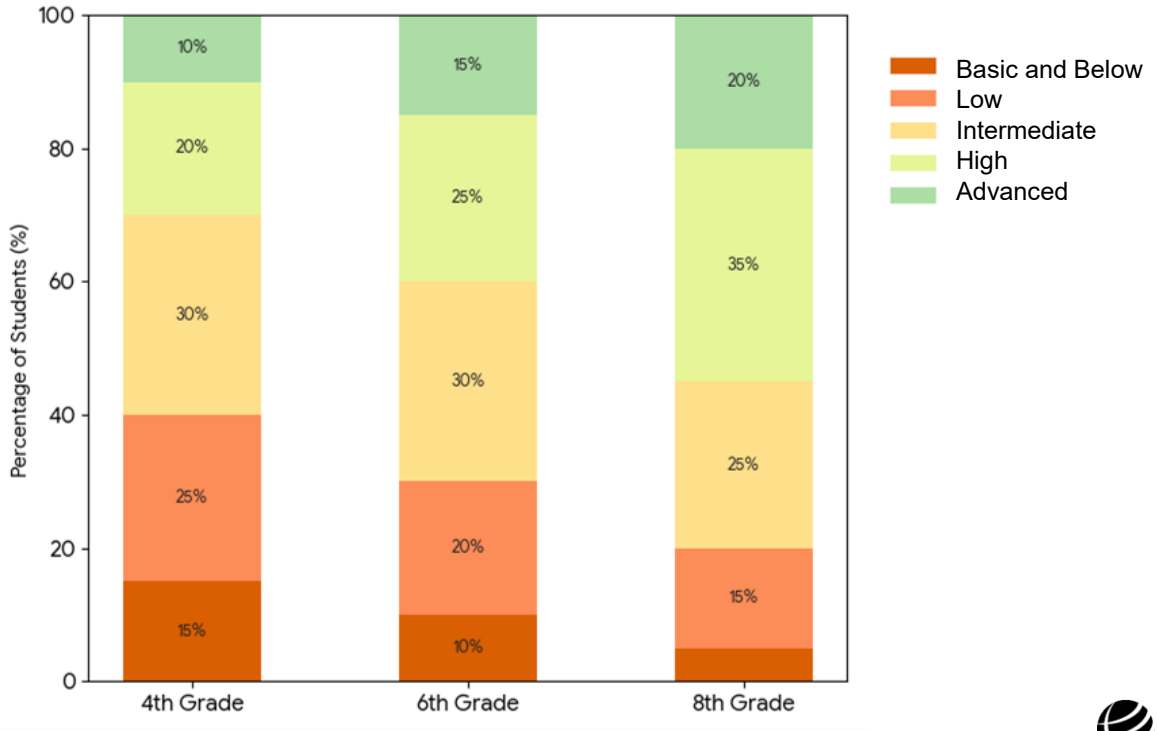
Vertical Scaling: Enable comprehensive monitoring across the entire primary-to-lower-secondary educational span.

Policy Support: Provide key data points required by countries to report on how minimal SDG goals are reached over time

Unified Standard: Link early achievement metrics to later adolescent outcome measures.

What Are the Advantages of Participating in a 6th Grade TIMSS Assessment?

Example Progression Across a TIMSS Vertical Scale



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What Will the 6th Grade Assessment Include?

1. Subject Assessment with Content Integration

Mathematics & Science

Based on a principled approach to content alignment across grades.

Will utilize a review of frameworks, item pools, and curriculum mapping analysis to guide selection of assessment materials.

Initially, combines appropriate materials from difficult 4th Grade and easy 8th Grade blocks from the TIMSS assessment pool.

Later iterations may more actively link 6th Grade topics into existing 4th & 8th Grade frameworks.

2. Context Questionnaires

Student & School Context

4th and 8th grade TIMSS questionnaires have a good amount of overlap.

A comprehensive compilation of suitable, and existing, questionnaire items and scales.

Directly based on the established TIMSS Student and School Context Questionnaires.

Proposed Timeline for Assessment Activities

2027/28	Framework and curriculum alignment study
2029	Test Assembly & Small-scale pilot test
2030	Field test – together with 4th and 8th grade field test
2031	Main data collection
2032	Reporting and dissemination
2033	Insights reports

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Guidance on Next Steps

We would like to hear feedback from the General Assembly to further develop the proposal and timeline



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Comments/Suggestions?

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