



**International Association  
for the Evaluation of  
Educational Achievement**

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## **CALL FOR PROPOSALS**

**Call no. IEA 03/08-2015**

### **Thematic report using IEA data: The importance of school safety**

#### **1. Introduction**

1.1 The International Association for the Evaluation of Educational Achievement (IEA) invites proposals for a thematic report based on secondary analysis of IEA data. The deliverable for this project will be an 80- to 150-page report that includes, in addition to the main text, an executive summary, tables, graphs, and cited references. The general theme for this publication is perceptions of school safety, and how these may be related to student learning outcomes.

#### **2. Data**

2.1 IEA's Trends in International Mathematics and Science Study (TIMSS) has assessed the achievement of students at grades 4 and 8 in mathematics and science at four-year intervals since 1995. In 2011, nationally representative samples of students in 63 countries and 14 benchmarking entities (regional jurisdictions of countries, such as states) participated in the study. In total, more than 600,000 students took part in TIMSS 2011. The various international reports on TIMSS 2011 provide a detailed overview of the study's results.<sup>1</sup>

2.2 IEA's Progress in International Reading Literacy Study (PIRLS) has been monitoring trends in grade four student achievement at five-year intervals in countries around the world since 2001. In the most recently released cycle of 2011, 49 countries plus nine benchmarking entities participated in PIRLS. The International Report published in 2012 gives a detailed overview of the results<sup>2</sup>.

2.3 IEA's International Civic and Citizenship Study (ICCS) is a comparative research program investigating the ways in which young people are prepared to undertake their roles as citizens. IEA ICCS 2009 reported on student achievement in a test of knowledge and conceptual understanding, as well as

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<sup>1</sup> See, for example: Mullis, I. V. S., Martin, M. O., Foy, P., & Arora, A. (2012). *TIMSS 2011 international results in mathematics*. Chestnut Hill, MA: TIMSS & PIRLS International Study Center, Boston College (<http://timssandpirls.bc.edu/timss2011/international-results-mathematics.html>)

<sup>2</sup> Mullis, I.V.S., Martin, M.O., Foy, P., & Drucker, K.T. (2012). *PIRLS 2011 International Results in Reading*. Chestnut Hill, MA: TIMSS & PIRLS International Study Center, Boston College (<http://timssandpirls.bc.edu/pirls2011/international-results-pirls.html>)

student dispositions and attitudes relating to civics and citizenship. For countries that participated in the 1999 data collection (14-year-olds), the 2009 study also measured longitudinal changes in civic content knowledge. The international report was published in 2010<sup>3</sup>.

### 3. Study background and objectives

An increasing number of policy makers and researchers recognize the importance of student perceptions of school safety.

The IEA's TIMSS contains an index of school safety, and Mullis et al. discovered "Students whose principals reported **Moderate Problems** in their schools had substantially lower mathematics achievement, by 45 points on average, than students whose principals reported **Hardly Any Problems** (451 vs. 496) " (Mullis, Martin, Foy, & Arora, 2012, p. 265). Meanwhile, the TIMSS and PIRLS 2011 relationships report suggested measures to evaluate school effectiveness, with one significant measure being related to whether a school was perceived as safe and orderly by principals, teachers and students<sup>4</sup>.

#### 3.1 Research questions

Tenders for the thematic report should deepen knowledge about school safety based on IEA data. Novel and diverse perspectives are welcomed; interesting aspects that could be explored in the report may include:

- How has school safety developed over time? TIMSS data are available for a period of nearly 20 years, while PIRLS trends go back to 2001. Do the data provide evidence concerning the development of school safety over time? School safety may be subject to international debate, but are public perceptions informed by the data?
- Do girls and boys, students in rural and urban communities, immigrant students and native students, or students at different age levels vary in their perceptions; is it possible to identify specific groups of students that policy makers should focus on?
- Are there teacher or school factors that are related to students feeling safe in schools? Are cultural factors involved? To identify and establish policies that influence students' perceptions of school safety, it is essential to understand which aspects of schools have created the positive impacts on students' safety.
- Can we go beyond the students' peer relationships and civic attitudes related to school safety? The IEA ICCS measures students' attitudes, perceptions and behaviours related to civic and citizenship. A Latin American module administered in 2009 had a specific emphasis on school safety. Further analysis may identify the conditions that enable students to feel safe in school.

<sup>3</sup> Schulz, W., Ainley, J., Fraillon, J., Kerr, D., Losito, B. (2010). *ICCS 2009 International Report: Civic knowledge, attitudes, and engagement among lower secondary school students in 38 countries*. Amsterdam, The Netherlands, International Association for the Evaluation of Educational Achievement.

<sup>4</sup> (http://www.iea.nl/fileadmin/user\_upload/Publications/Electronic\_versions/ICCS\_2009\_International\_Report.pdf)  
Martin, M.O., & Mullis, I.V.S. (Eds.) (2013). *TIMSS and PIRLS 2011: Relationships among reading, mathematics, and science achievement at the fourth grade—implications for early learning*. Chapter 3, pp. 115–117. Chestnut Hill, MA: TIMSS & PIRLS International Study Center, Boston College [http://timss.bc.edu/timsspirls2011/downloads/TP11\\_Relationship\\_Report.pdf](http://timss.bc.edu/timsspirls2011/downloads/TP11_Relationship_Report.pdf).

## 3.2 Methodology

Learning is a complex process that takes place within a particular environmental context. Successful teaching depends on structural factors solely related to the role of teacher, several factors related to teachers and students as individuals (such as motivation and opportunity to learn) and several factors related to classroom and school contexts. It is therefore important that the proposal is explicit in addressing such complexities. The proposal must also explain how trends and the multilevel structure of the IEA data will be treated. The proposal should carefully consider the quality and reliability of the data.

Researchers are encouraged to use analytical methods for cross-sectional data that go beyond ordinary least squares (OLS) regression, such as discontinuity design, difference in differences, and instrumental variables, as these lessen the problems associated with simple correlational analysis. The limitations of the selected methods should be clearly identified.

## 4. General guidelines for proposal submission

4.1 Proposals must be submitted in English.

4.2 The research literature on school safety is extensive. Please ensure the proposal demonstrates familiarity with this research by including a sound literature review. Ensure that the contribution the analysis of the IEA data will make to this literature is explicit, especially in terms of its potential to expand the current state of research and knowledge.

4.3 When preparing a proposal, please clearly specify the research relevance and the policy relevance of the research questions and methods selected. This specification needs to expand on and add to the ideas set out in this call for proposals.

4.4 The proposal must furthermore describe the general analytical framework that will guide not only analyses of the IEA data, but also interpretation of the results of those analyses. The description of the framework must be such that it clearly shows how the proposed analysis will address the policy-relevant research questions. The description should therefore identify:

- (i) IEA data (study, questionnaire items, indices, or constructs from questionnaires) that will be used,
- (ii) any non-IEA data sources that will be included, and
- (iii) any additional research that is necessary (e.g., system-level characteristics). Please make sure that a brief description of the types of statistical analyses to be used is included.

4.5 In addition, the proposal must include a detailed timeline for all analyses and report-writing activities, and a well-considered budget.

4.6 When developing timelines, assume a start date of 30 November 2015 and an end date of 25 November 2016; the final manuscript of the report must be supplied to IEA for print production by 30 September 2016. Although there may be slight flexibility in the timeline, please assume (i) submission of a complete draft report by 1 June 2016 for review by IEA, and (ii) the subsequent revision and language editing of the report June–September 2016. The corresponding author must be available for consultation with Springer Publishers during the print production period, which is scheduled for September –November 2016.

- 4.7 Budgets must include the expected number of work days needed to complete each activity related to the project and a total budget in euros or US dollars. The total budget should not exceed 25,000 euros.
- 4.8 The call is open to all researchers, excluding teams from IEA International Study Centers.
- 4.9 The proposal should be no more than 10 pages in length<sup>5</sup>. Please also provide a short (500-word maximum) biographical note on each person in the team tendering for the project. Please highlight the relevance of each person's experience to the proposed activities.
- 4.10 IEA will review all proposals according to their methodological quality, research and policy relevance, and budget. All tenderers will be informed of the outcome of these deliberations by 30 October 2015.

Proposals may be submitted by post or by courier. The deadline for proposals is 1:00 p.m., 2 October 2015. Send the proposal by post to:

International Association for the Evaluation of Educational Achievement

IEA Secretariat  
Herengracht 487  
1017 BT Amsterdam  
The Netherlands

or by email to [department@iea.nl](mailto:department@iea.nl).

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<sup>5</sup> 12 point type, double spaced.