IEA

Job description of the National Research Coordinator (NRC) and tasks of the National Study Center (NSC) for IEA's TIMSS and PIRLS

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The **National Research Coordinator** (NRC) plays a major role in IEA's TIMSS and PIRLS projects and is a country's main contact person for all aspects of the study. The NRC's main responsibility is the implementation of the study in the country, including the coordination of all tasks (see tasks listed below). The NRC is required to have an excellent command of English (IEA's working language).

More specifically, the NRC is responsible for:

- Organizing the **National Study Center** (NSC) to perform the TIMSS and/or PIRLS tasks;
- Employing and/or supervising staff, including assigning/distributing the roles as outlined below;
- Ensuring availability of required hardware and software and other necessary equipment and materials;
- Communicating with the TIMSS & PIRLS International Study Center, IEA Amsterdam, IEA Hamburg, and RTI International;
- Participating in the international NRC meetings;
- Contributing to the TIMSS and/or PIRLS Encyclopedia by providing a chapter for the county;
- Contributing to the International Reports by participating in the review process and making sure the country's data are accurate; and
- Preparing and disseminating a national report for TIMSS and/or PIRLS in synchronization with the release of the International Report.

In addition to the NRC, further staff is required in each country to successfully conduct the study.

Required roles and expertise:

- **Content and Curriculum Experts**
  The Content and Curriculum Experts are responsible for reviewing the updated Assessment Frameworks (Mathematics, Science, Reading) from the perspective of the country, recommending reading passages for PIRLS, participating in the item/scoring guide development, reviewing items/scoring guides, and training for reliable scoring of constructed response items. It is desirable that the Context Questionnaire Framework and the questionnaires be reviewed by individuals familiar with educational policies and practices in the country.
- **Sampling Coordinator**
  The Sampling Coordinator works with the TIMSS and PIRLS sampling experts to adapt the international sampling design to national conditions. He/she determines specific national analysis priorities (e.g., analysis of particular population subgroups) that may affect the sampling design.

- **Data Manager**
  The Data Manager manages all data related issues, organizing and implementing within-school sampling procedures, overseeing data entry, and verifying the quality of all data products. He/she also would be responsible for or would assist with preparing the software to be distributed for the electronically administered assessments.
- **Office staff**
  Responsible for general office administration, and may include tasks such as contacting schools, making travel arrangements, etc.

It is possible that a single individual may perform some or all of these roles, but it also is possible to share the roles among several individuals, depending on the individuals' capabilities and the funds available.

Additionally, each NSC will need to coordinate the following roles:

- **Translators/Translation Reviewers**
  Translators and Translation Reviewers are responsible for the translating the assessment instruments (achievement items and questionnaires) into the national language(s) and for verifying the translations internally. Translation and both internal and external verification is conducted using a combination of a web-based online system and RTF/InDesign files with documentation in Excel format.
- **School Coordinators**
  Each school participating in TIMSS or PIRLS nominates a School Coordinator who provides information about classes, teachers, and students in the school and organizes and supervises the assessment administration. School Coordinators coordinate checking and preparing computers to be used, launching the software on the compatible computers, and uploading the data to the study server, unless external computers/tablets are used or the process is otherwise organized by the NSC. The TIMSS & PIRLS International Study Center provides an international version of School Coordinator Manual, which the NRC translates and/or adapts to create a national version for use in the participating schools. It is the NRC's responsibility to sufficiently train School Coordinators to effectively perform in their role.
- **Test Administrators**
  Participating schools also require a Test Administrator to administer the assessment in the selected classes. In some situations, the School Coordinator may also perform this role. The TIMSS & PIRLS International
  Study Center provides an international version of Test Administrator Manual, which the NRC translates and/or adapts to create a national version for use in the school. For the electronically administered assessments, it is helpful to have a Test Administrator's assistant for each testing session, in order to help with any technical issues of individual students while the Test Administrator administers the assessment to the class.
- **IT Support**
  For the electronically administered assessments, the NSC manages a help desk or assures availability of support personnel for the School
  Coordinators and Test Administrators in order to resolve any IT issues that they might encounter while preparing for and administering these assessments.

- **National Quality Control Monitor**
  This person(s) observes and reports on actual testing sessions in 10% of selected schools. The TIMSS & PIRLS International Study Center provides international versions of National Quality Control Manual and Classroom Observation Record, which the NRC translates and/or adapts to create national versions for use in implementing the national quality assurance program.
- **Scorers**
  The scorers apply TIMSS/PIRLS guidelines to determine whether or not student answers to the constructed-response items are correct. An online scoring system will be used for scoring the electronically administered TIMSS and PIRLS, as well as for the trend and cross-country reliability scoring. Scorers are required to have basic computer skills.
- **Staff for data entry and/or scanning**
  For the paper-based instruments, it is necessary for data entry staff to enter the data into data files and/or for scanning staff to scan the instruments and compile the data into data files.

The study tasks in a country include:

NOTE: There are **two** rounds of instrument development, achievement test and context questionnaire administration, and analysis activities for both TIMSS and PIRLS assessments. First, instruments are

developed and field tested using procedures that are the same as those planned for the assessment administration. After the field test is conducted, scored, and the results analyzed, the final instruments are selected for the assessment. Then, the assessment is conducted and the data are again scored, analyzed, reviewed, and the results are reported.

Stage 1: Preparing school sample (school sample usually is selected at the same time for the field test and for the main data collection), contacting schools, and sampling classes for the field test and then for the assessment administration

- Specifying the school sampling design with the help of study sampling experts.
- Providing the school sampling frame including all sampling-related information.
- Contacting the sampled schools to obtain cooperation.
- Identifying and training School Coordinators for each sampled school.
- Requesting information about classes and their teachers from the sampled schools.
- Sampling one or more classes per school and per target grade (using IEA's proprietary software).
- Listing the students and their teachers in the sampled classes.
- Assigning instruments to students, teachers, and school principals.   Printing tracking forms and/or labels.

Stage 2: Preparing the field test instruments and then the assessment instruments for the data collection

- Contributing to assessment item writing (e.g., at the item development workshop) and to reviewing assessment items and context questionnaires.
- Translating, reviewing, and producing national instruments. This includes applying national adaptations and documenting them.
- Submitting the translated national instruments (achievement items and context questionnaires) to IEA Amsterdam for international translation verification.
- Submitting the national instruments to the TIMSS & PIRLS International Study Center for international layout and adaptations verification.
- Testing and finalizing/approving the assessment player(s) and online system version of context questionnaires.
- Printing any paper-based national instruments.

Stage 3: Administering the field test and then the assessment At the National Study

Center:

- Preparing and sending field test materials and later assessment materials to the participating schools.
- Nominating an International Quality Control Monitor for the assessment, if required by IEA.
- Carrying out the National Quality Assurance Program for the field test and then again for the main data collection.
- Responding to the Survey Activities Questionnaire for the field test and then again after the assessment administration.   Responding to the Curriculum Questionnaire.

At the participating schools:

- Preparing computers/tablets for the field test and then again for the assessment administration. This includes testing the compatibility of the devices to be used and launching the assessment administration software on the compatible devices. This step is either done at the schools, at the NSC, or at an external outsourced company. The TIMSS & PIRLS International Study Center provides an international version of the preparing computers instructions, which are then translated and/or adapted in order to create a national version of the instructions.
- Administering the field test and then the assessment.
- Calculating student response rates and holding make-up sessions.
- Uploading the assessment data and returning the field test/assessment materials to the NSC.

Stage 4: Scoring student responses to the constructed-response items

(for the field test and then again for the main data collection)

- Organizing paper materials for scoring and data entry, and/or managing the online scoring system.
- Training scorers.
- Scoring the constructed-response items, including documenting the crosscountry scoring reliability and the trend scoring reliability (trend countries only).
- *NOTE: The cross-country reliability scoring is conducted in English. All scorers who can score student responses written in English should participate. It is advised that at least one scorer in each country has sufficient English language proficiency for this task.*

Stage 5: Creating the data files and reviewing the data
　　　(for the field test and then again for the main data collection)

- Entering test administration information (using IEA's proprietary software).
- Entering the data from any paper instruments (using IEA's proprietary software).
- Verifying the data.
- Submitting the required field test materials and then the main data collection materials to the TIMSS & PIRLS International Study Center, IEA Hamburg, and RTI International.
- Reviewing the country's field test data provided in the item and questionnaire almanacs for accuracy, reviewing the assessment data provided in the item and questionnaire almanacs for accuracy.　　Reviewing the International Reports.

Stage 6: Preparing national reports

- Conducting national analysis of the data.
- Writing the national report.
- Disseminating the national report (in synchronization with the release of the International Report).

2021

April – May	Item Pilot (English-speaking countries)
July	National Research Coordinators begin preparing for the field test—for example, begin planning for translation process; National Research Coordinators also continue developing sampling plans with sampling consultants
October	2nd NRC Meeting to review items for field test
November	National Research Coordinators begin within-school sampling for the field test; National Research Coordinators begin translating field test achievement materials, documenting national adaptations; National Research Coordinators organize devices for the field test and test devices for eTIMSS compatibility
December	National Research Coordinators begin submitting field test materials to IEA Amsterdam for translation verification and to the TIMSS & PIRLS International Study Center for layout verification

2022

January – February	eTIMSS field test national players are produced and tested
February – March	National Centers organize and implement National Quality Assurance Program for the field test

March 1 – April 15: Conduct TIMSS 2023 Field Test

March	3rd NRC Meeting to conduct training for field test scoring
	Translation and layout verification completed for TIMSS 2023 field test
	National Research Coordinators begin training scorers from national centers. Following field test administration, scoring and any paper instrument data entry begins
April – May	National Research Coordinators submit all field test data to IEA Hamburg
	National Research Coordinators from countries that did not participate in TIMSS 2019 begin the translation process for trend blocks; Countries transitioning to eTIMSS begin preparing paper bridge booklets

July

Southern Hemisphere countries begin sampling classes for data collection; Southern Hemisphere countries commence translation and layout verification process for trend blocks and, if applicable, bridge booklets; Southern Hemisphere countries begin organizing devices for data collection, testing devices for eTIMSS compatibility

August   4th NRC Meeting to finalize instruments for data collection

September   National Research Coordinators begin translating data collection materials and documenting national adaptations

Southern Hemisphere countries complete the translation and layout verification process for all instruments and eTIMSS players for Southern Hemisphere countries are produced and tested

Data managers attend a data management seminar conducted by IEA Hamburg

Northern Hemisphere countries begin sampling classes for data collection

National Research Coordinators from Southern Hemisphere countries organize and implement National Quality Assurance Program

October – December: Data Collection — Southern Hemisphere

October   Northern Hemisphere countries begin submitting data collection materials to IEA Amsterdam for translation verification and TIMSS & PIRLS International Study Center for layout verification

November   Southern Hemisphere training to score constructed response items
November   National Research Coordinators from Southern Hemisphere countries begin training scorers. Following data collection, scoring and any paper instrument data entry begins

2023

January

Northern Hemisphere countries organize devices for the data collection and test devices for eTIMSS compatibility

February   Deadline for Southern Hemisphere countries to submit data to IEA Hamburg
(three months after data collection)

February – April eTIMSS players for Northern Hemisphere countries are produced and tested

February – June

National Research Coordinators from Northern Hemisphere countries organize and implement National Quality Assurance Program

March – June: Data Collection — Northern Hemisphere

March   5th NRC Meeting to train countries in constructed response scoring

Translation and layout verification completed for Northern Hemisphere countries

National Research Coordinators from Northern Hemisphere countries begin training scorers. Following data collection, scoring and any paper instrument data entry begins

National Research Coordinators begin writing Encyclopedia chapters and begin completing curriculum questionnaire

National Research Coordinators receive the Survey Activities Questionnaire

August   Deadline for National Research Coordinators to complete Curriculum Questionnaire

September   Deadline for Northern Hemisphere countries to submit data to the IEA Hamburg (three months after data collection)

December   6th NRC Meeting to review background data

2024

January – February   Countries review national data and flag any discrepancies to IEA Hamburg

February   Deadline for National Research Coordinators to submit Encyclopedia chapters to TIMSS & PIRLS International Study Center

June   7th NRC Meeting to review draft International Results

December   TIMSS & PIRLS International Study Center/IEA releases TIMSS 2023 results

2025

February   TIMSS & PIRLS International Study Center distributes final TIMSS 2023 International Database and User Guide to countries

8th NRC Meeting to conduct training on analyzing the TIMSS 2023 International Database