PISA NATIONAL PROJECT MANAGER MANUAL

Changes from Part 1 (October 2015):

- Chapters 7-10 are new and the text is shown in black.

- Major changes made to Chapters 1-6 are noted in green text

Produced by PISA 2018 International Contractors

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CHAPTER 1 – INTRODUCTION TO PISA 2018 AND PISA 2018 NPM MANUAL

1.1. Introduction

This chapter provides a brief overview of the rationale and design of the Programme for International Student Assessment (PISA). It discusses the organisations and management structures associated with the international implementation of PISA. It also provides some additional suggestions to assist National Project Managers (NPMs) who are new to PISA.

Following this section, the aims and structure of this manual are described, which covers both the Field Trial and Main Survey phases of implementation. The manual is designed to act as a first reference point for use in planning your work. You will, however, be expected to refer to and make use of other materials, including a number of key documents, throughout the course of PISA 2018.

It can seem daunting to consider all of the information and materials at once, particularly if you are new to PISA. We recommend that you review this chapter and the additional readings listed in section 1.2.4 for more detail about specific aspects of the design of PISA, the associated databases, and publications. We suggest you then review Chapter 2 and Chapter 3. They describe the protocols for communicating with the international contractors and how to access and use the PISA 2018 Portal, which is the starting point for accessing all key documents and timelines.

PISA is a multi-year project with implementation phases that are sequential and linked. The remaining chapters in this manual are organised according to these phases and the chronological order in which they occur. It is recommended that you review a particular chapter at the beginning of the relevant actual phase. At the same time, you should review the chapter for the subsequent phase because phases can overlap, and you will need to plan your activities and allocate resources accordingly. The "Tasks" tab on the PISA Portal shows you a list of tasks customised for your country, the date by which they need to be completed, and whose responsibility it is to complete it: representatives from your National Centre or an international contractor.

1.2. PISA: An Overview

PISA was designed and developed by the Organisation for Economic Co-operation and Development (OECD) in the late 1990s as an ongoing, periodic international comparative study that primarily gathers indicators of student characteristics and proficiencies. It is designed to generate reliable, high-quality indicators of education system outputs (chiefly, knowledge and skills in the domains of Reading, Mathematical, and Scientific Literacy) at a point at which compulsory schooling (age 15) is at or nearing an end in most OECD countries. PISA also gathers context data that allow these outputs to be interpreted in terms of their broader contexts. PISA data are of interest to academics, researchers, and other partners in education.

PISA is managed and directed collaboratively by OECD member countries, with the participation of an increasing number of non-member countries, referred to as "partner" countries or economies. For PISA 2015, 34 OECD and 38 partner countries/economies (hereafter referred to as simply "countries") participated.

The OECD oversees the project through the PISA Governing Board (PGB) and administers the project through a Secretariat based in Paris. For each survey administration period, the OECD appoints external contractors to implement the project following an open and competitive tendering process.

PISA surveys take place every three years. Although each survey administration period assesses all three main assessment domains, the focus of the survey shifts from domain to domain in rotation so that very detailed data are periodically available for each domain, and in-depth comparisons are possible every 9 years. The first survey took place in 2000 (when the focus was Reading Literacy), the second in 2003 (Mathematical Literacy), the third in 2006 (Scientific Literacy), the fourth in 2009 (Reading Literacy again), the fifth in 2012 (Mathematical Literacy again), and the sixth in 2015 (Scientific Literacy again). For PISA 2018, Reading Literacy is again the major domain. From time to time, additional domains are assessed. PISA 2015 included an assessment of Collaborative Problem Solving and PISA 2018 includes an assessment of Global Competence.

PISA takes a "real-life literacy" perspective rather than a curriculum-driven one. It focuses on the extent to which students can use the knowledge and skills they possess when confronted with situations and challenges relevant to these skills. That is, it assesses the extent to which students can use their knowledge and skills in reading to understand and interpret the various kinds of written material that they are likely to meet as they negotiate their daily lives; the extent to which they can use their mathematical knowledge and skills to solve various kinds of mathematics-related challenges and problems they are likely to encounter; and the extent to which they can use their scientific knowledge and skills to understand, interpret, and resolve various kinds of scientific situations and challenges. PISA's assessment design is guided by an assessment framework, published by the OECD. The framework defines the scope, sub-areas, and skills associated with each domain, and it includes sample test items.

PISA assesses mainly 15-year-old students in school in grade 7 or higher. It is an age-based survey rather than a class- or grade-based one. The choice of this population means that the assessment is targeted to measure the extent to which students are prepared for the daily challenges of adulthood in modern society.

Because valid and reliable cross-national comparability is crucial to PISA, its implementation plan is guided by a set of Technical Standards published by the OECD. The purpose of these standards is to assure the consistency, precision, and generalisability of the data, as well as adherence to the international survey administration timeline.

One year prior to each Main Survey implementation, materials and procedures are field-trialled in all participating countries. For the Main Survey, scientific sampling procedures are implemented, typically in a two-stage design, whereby a nationally representative sample of schools is selected first and then a random within-school sample of students who fit the PISA population definition is selected second. The sample is guided by clear definitions of the PISA

populations of schools and students. The sample size of assessed students for countries choosing to implement PISA 2018 as a computer-based assessment (also referred to as CBA countries) is a minimum of 6300 (2100 for adjudicated entities) or the entire PISA Defined Target Population where the population is below 6300 (2100 for adjudicated entities). This ensures that estimates derived from the data are precise enough to allow inferences about the population from which the sample has been drawn.

A common set of assessment and questionnaire instruments is used in each participating country. These core instruments typically comprise assessment materials, a Student Questionnaire, and a School Questionnaire. The translated and adapted materials are verified with extreme care. Further, all procedures affecting test conditions are standardised across countries and carefully monitored. These two factors ensure that valid and reliable cross-country comparisons (as well as comparisons for subgroups within countries) can be made.

The PISA data are scaled using item response theory (IRT). This feature of PISA allows a large pool of test items to be used in the survey and enables comparisons within and among participating countries and the reporting of trend data (comparisons of outcomes across survey cycles).

Following the implementation of the survey in participating countries, the data are subjected to a rigorous checking and validation process. National Centres participate in this review and collaborate with the international contractors on data treatment issues.

The OECD publishes an initial international report of the outcomes in December of the year following the Main Survey. The international database is released at the same time as the initial international report, and a technical report follows shortly after. Manuals that assist users in understanding and analysing the data are also published. Thematic reports are published after the initial report. These are designed to provide more in-depth treatment of specific topics. The PGB determines the focus of the thematic reports (see also next section).

All international OECD publications, as well as the international database, are available on the OECD PISA website at www.oecd.org/pisa.

1.2.1. PISA 2018: An Overview

PISA cycles 2000 through 2012 were implemented as paper-based surveys, with CBAs as optional components since 2006.[1] For example, the 2012 cycle included a CBA of problem solving, a CBA of mathematics (CBAM), and a CBA of digital reading (DRA). The CBAM and DRA were together referred to as the Computer-Based Assessment of Literacies (CBAL). These optional CBA components were administered to a sub-sample of the regular PISA 2012 samples.

PISA 2015 represented an important step forward, as it was the first cycle to implement PISA as a fully computer-based survey, and PISA 2018 will build on this trend. PISA 2018 will offer all three core domains – Reading Literacy as the major domain and Mathematical and Scientific

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[1] Three countries chose this option in 2006, with close to 20 in 2009, and more than 40 in 2012.

Literacy as the minor domains – as well as the new domain of Global Competence as CBAs. Additionally, the Student and School Questionnaires will again be administered as computer-based components. While computer-based delivery will be the primary mode for 2018, paper-based instruments linked to previous surveys will be provided for countries unable or unwilling to test their students by computer. The paper-based assessments (PBAs) include trend items only, as all new items are developed for computer delivery only. The questionnaire content is as parallel as possible in both forms (paper- and computer-based). However, limitations might occur with the formats of the paper-based items.

Consistent with other cycles and pending decisions from the OECD and participating countries, PISA 2018 may continue to offer optional components that can vary from new assessment domains to optional questionnaires. The following international options are available for students in PISA 2018: an assessment of Financial Literacy (CBA countries only), an ICT Familiarity Questionnaire, an Educational Career Questionnaire, and a Well-Being Questionnaire (CBA countries only). In addition, PISA 2018 offers a Teacher Questionnaire (CBA countries only) and a Parent Questionnaire (hardcopy only; an option for both CBA and PBA countries).

1.2.2. PISA: International Management Structure

This section provides a broad overview of the various groups involved in the international implementation of PISA and a description of decision-making processes.

Countries with full membership status in PISA (currently the 34 OECD countries, plus Brazil) are responsible for PISA at the policy level. Through the PGB, they determine PISA's policy priorities and oversee adherence to these priorities during its implementation. The PGB determines policy objectives, establishes priorities for indicator development and reporting, and specifies the scope of work. The PGB also works with the OECD Secretariat to ensure compliance with objectives, milestones, and study parameters.

The OECD Secretariat is responsible for PISA's overall management, acting as the Secretariat of the PGB and as the interface between the PGB and the international contractors. It monitors the implementation of the project and builds consensus among participating countries on policy issues through the PGB. The OECD Secretariat produces the indicators and analyses, and prepares the international reports in collaboration with participating countries.

Within each participating country, a National Centre is established. An NPM is appointed according to a specified set of guidelines. NPMs co-ordinate all activities at the national level under the guidance of their PGB members. Typically, the NPM works closely with the country's PGB member to establish a national perspective on policy matters, on matters related to project implementation, and on the analysis and reporting of outcomes that may be of particular relevance to the country. Usually the NPM works with a national team on tasks such as project development, implementation, and reporting at the national level. Depending on the country's education structure and PISA implementation plan, NPMs and/or PGB members may also liaise on specific aspects of the projects with national or sub-national committees, subject or assessment expert groups, curriculum authorities, teacher unions, and other individuals or

groups. A detailed description of the tasks and responsibilities of NPMs is provided in Appendix A.

The project is implemented by international contractors appointed by the OECD to carry out this work. International contractors are selected each survey administration cycle following an open and competitive tendering process.

For PISA 2018, a group of four international contractors is leading all aspects of PISA implementation under the close guidance of the OECD Secretariat.

- Core A – Educational Testing Service (ETS), in co-operation with the Deutsches Institut für Internationale Paedagogische Forschung (DIPF), cApStAn, Statistics Canada, Westat, University of Liége (Service d'Analyse des Systèmes et des Pratiques d'Enseignement; aSPe), University of Luxembourg, and HallStat SPRL

Design, development, implementation, and analyses, including:

— Instrument development, scaling, and analysis

— Translation plans and workflows, translation verification follow-up

— Data management

— Questionnaire development

— Development of the electronic platform for the CBA

— Survey operations and procedures

— Oversight and management

- Core B – Pearson

Framework development

- Core C – Westat, in co-operation with the Australian Council for Educational Research (ACER)

Sampling

- Core D – cApStAn

Linguistic quality assurance and linguistic quality control

Specific details about the communication protocols relating to the international contractors are presented in Chapter 2 of this manual.

Successful implementation of PISA depends on the effective communication and collaboration of the international contractors with personnel engaged at the national level. National Centres

provide the international contractors with information about conditions and constraints operating in their countries, feedback regarding instruments and procedures being developed, and important advice on how the project can best be implemented nationally. The group of international contractors in turn provides National Centres with information about project requirements, draft materials for national consideration and feedback, training on matters such as item coding and data processing, and materials to facilitate project implementation.

Various expert groups have been established to provide substantive and technical advice on specific aspects of PISA. The Technical Advisory Group advises on the technical features of the survey, such as scaling and sampling methodologies, and has a role in ensuring the technical quality of the data. The Subject Matter Expert Groups and Questionnaire Expert Group are responsible for linking the policy objectives identified by the PGB with expertise in the relevant area, as well as establishing consensus on content and technical issues raised by countries within the larger framework, and the objectives of the overall implementation strategy.

1.2.3. Accommodations for Students with Disabilities or Special Needs

PISA permits limited modifications and accommodations to assist students with special educational needs (SEN). This is because the PISA design is intended to generate data that are aggregated to provide national (and sub-group) measures and not to provide individual student scores.

There is provision for school staff to record information about students having special educational needs; if they are deemed severe enough to prevent the student from participating, this is one of the accepted grounds for exclusion (more details are provided in materials sent to schools).

There is also provision for cases where a school caters exclusively to students with SEN to administer a shortened, 1-hour version of the test to all sampled students. This version is referred to as the UH Form (Une Heure, which is French for 1 hour). However, as PISA has evolved, procedures have been adapted that also would enable individual students in mainstream schools to use this version of PISA under certain defined conditions and also allow more flexible administration conditions (accommodations). More information about accommodations is provided in the school-level materials (School Co-ordinator, School Associate,[2] and Test Administrator Manuals). You should discuss your questions and plans about accommodations for SEN students with Core A Survey Operations before implementing them.

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[2] Throughout this manual, the terms "School Co-ordinator" and "Test Administrator" are used when discussing the administration of the test in schools. However, please note that some countries use School Associates, individuals who fulfill the role of both School Co-ordinator and Test Administrator. School Associates will receive a School Associate's Manual and will be trained by the National Centre.

1.2.4. Further Reading

If you are new to PISA, you are especially encouraged to explore the OECD PISA website (http://www.oecd.org/pisa). It contains a number of informational and planning publications for various stages of the survey. Some key examples are listed below.

- The PISA 2015 Draft Frameworks present the conceptual frameworks underlying the PISA assessment for Scientific Literacy, Reading Literacy, Mathematical Literacy, Collaborative Problem Solving, and the questionnaires. It is the blueprint of the study and is useful for communicating the survey content (e.g., in drafting background chapters for a national report). See also the 2012 framework for Financial Literacy.

- The international reports offer an excellent starting point for understanding how results are used. These reports are available for each cycle at http://www.oecd.org/pisa/keyfindings.

- Various thematic reports (such as Equally Prepared for Life: How 15-Year-Old Boys and Girls Perform in School) are illustrative of the in-depth treatment of specific policy issues.

- The Data Analysis Manuals provide an introduction to the technical aspects of PISA, describe how to apply appropriate analysis procedures in both SPSS and SAS, and detail the content and structure of the PISA international database. The manuals from previous cycles are available at http://www.oecd.org/pisa/pisaproducts/pisadataanalysismanualspssandsassecondedition.htm.

- For more information about the technical aspects of PISA (such as sampling techniques, weighting, and scaling of test items), refer to the PISA 2015 Technical Report at http://www.oecd.org/pisa/data/2015-technical-report/.

- Note that you can also access all the publications, documents, and manuals, as well as links to the databases, on the OECD PISA website at http://www.oecd.org/pisa.

1.3. The NPM Manual

1.3.1. Purpose of the NPM Manual

The NPM Manual is the central operational manual for PISA and is produced by the international contractors. If you have any questions or suggestions regarding this manual, please contact PISA-GeneralQueries@westat.com.

You should use this manual as the starting point for reviewing project requirements and planning national tasks, referring to other specific key documents when appropriate. All key documents can be accessed from the PISA Portal (http://pisa.ets.org/portal).

The manual has a number of purposes:

- Depicting the role of the NPM within the broader international context of project implementation;

- Providing practical information for planning and implementation of various tasks and information that has implications for national resource allocations;

- Providing a general overview of the PISA Portal;

- Helping to provide NPMs with a clearer rationale for tasks by specifying the link between NPM activities and the PISA 2018 Technical Standards; and

- Explaining protocols for successful communication with the international contractors and other stakeholders.

The data collection activities of each country throughout the PISA 2018 survey administration will ultimately be judged against the PISA 2018 Technical Standards to determine the suitability of data for inclusion in the PISA 2018 data set. Reference to the standards will be made throughout the NPM Manual.

PISA is a consultative project in which various involved groups provide input and suggest improvements at different stages. Some features of survey implementation (e.g., international options for assessment, questionnaires, and sampling) cannot be finalised before consultations with NPMs and other PISA stakeholders about various technical, operational, and substantive issues. The NPM Manual cannot, therefore, provide full specifications of these elements at this stage. Instead, you should refer to information presented in the PISA 2018 Portal in the "Documents" and "Tasks" tabs and "Calendar" feature.

Your day-to-day work will be supported by the PISA Portal website, this manual, and other procedural documents. The PISA Portal is the access point to all PISA materials as well as the repository of all of the key details relating to the national implementation of this project. Detailed information about the PISA 2018 Portal is provided in Chapter 3.

1.3.2. Structure of the NPM Manual

This chapter provides an introduction to PISA and a summary of the roles and responsibilities of key stakeholders.

Chapter 2 describes the protocols for communication between and among international and national PISA staff, while Chapter 3 describes the structure of the PISA Portal. The remaining chapters correspond to the key phases of the survey administration as follows, with *approximate* dates for the end of each phase also provided:

- Chapter 4: First Review Phase (July 2016)

- Chapter 5: Field Trial Preparation Phase (March 2017)

- Chapter 6: Field Trial Phase (October 2017)

- Chapter 7: Second Review Phase (December 2017)

- Chapter 8: Main Survey Preparation Phase (March 2018)

- Chapter 9: Main Survey Phase (February 2019)

- Chapter 10: Review and Reporting Phase (December 2019)

Note that these phases include overlap, so at times you will be completing tasks corresponding to more than one phase.

The "phase chapters" in this manual are all structured in a similar manner:

- *Overview of Tasks* — Brief overview of the main tasks typically carried out during the phase. As well as providing an overview, it also may have useful material for inclusion in internal communications and progress reports, for example, to your national funding body.

- *Key Tasks* — A description of the tasks to be undertaken during the phase. References to key documents are provided where appropriate. Extracts from the PISA 2018 Technical Standards, although not yet approved, are presented and explained in the context of some activities where relevant. It should be noted that the ordering of activities in these checklists is not necessarily chronological, and there will be times when several activities occur concurrently.

Appendix A is based on the document "PISA 2018 NPM Roles and Responsibilities" that the OECD Secretariat provides to prospective PISA participants and describes the scope of the work typically undertaken by NPMs. The other appendices contain supplementary information, including a sample confidentiality form (Appendix B) and a glossary of PISA terms (Appendix C). Finally, Appendix D includes an tentative schedule of tasks to be undertaken during each of the phases noted above during the PISA survey period and should be used as a reference when reviewing each chapter. To facilitate planning, Appendix E replicates the tasks presented in Appendix D but organises them chronologically.

1.3.3. Schedule of Tasks for PISA 2018

Implementing the PISA project involves co-operation, negotiation, and sharing of information at all stages of the project. The international contractors will provide you with a range of materials at key points throughout the survey administration period. At times there will be information to review (for example, items that have been developed for consideration for the Field Trial, or reports of item performance following the Field Trial), including source material of test and questionnaire instruments and manuals. There will also be in-person meetings and online webinars at which papers will be presented and the key documents described above introduced, and you will have opportunities to provide feedback and input. In addition, there will be many points where you will need to discuss aspects of your national implementation plans with the international contractors. There will be forms to be completed or uploaded onto the PISA Portal.

Within this manual, we have attempted to indicate points at which these negotiations and exchanges of information will occur. We have also discussed activities, such as Test Administrator training, coding of student survey responses, and data entry, that will need to be conducted by your National Centre, and when these activities will occur. Further details about these tasks that you will be overseeing as NPM will be provided in the key documents.

As previously noted, Appendix D describes the sequence of tasks for the survey administration. It is a starting point to assist with planning your national schedule and only presents key tasks for PISA 2018. These activities are organised by phases and groups by general areas. The column "responsibility" identifies who is responsible for the task, mainly international contractors, or National Centres led by the NPMs.

A number of the tasks referred to in the table in Appendix D are connected to your testing period. For example, the submission of your Field Trial database is required within 8 weeks of the last day of testing in your country. The time when this task is completed will therefore vary, depending on your testing period.

There will, of course, be many other tasks and activities that you will be undertaking beyond those that are listed in the table, such as organising national committee meetings, the preparation of informational materials, and organising the printing of materials. These activities also should be inserted into your national schedule so that you can plan for them in advance.

CHAPTER 2 – COMMUNICATION PROTOCOLS

2.1. Overview

PISA is an international, collaborative project whose primary purpose is the creation of a single data set of the highest possible quality on educational outcomes for release by the OECD. As an international study, the project makes extensive use of available communication technologies such as the Internet, webinars, videoconferencing, emails, file transfer protocols (FTP), couriers, and telephone. As a collaborative project, interaction among all participants is encouraged to foster exchange of knowledge and procedures and to promote further exploration of results. Because PISA has a primary purpose to which all participants contribute, operational information and objectives must be communicated clearly and unambiguously. However, PISA uses secure instruments to measure educational outcomes, so all communication directly relating to operations must be conducted in a secure manner. Because PISA is an OECD-sponsored project, all communications to those outside PISA can only reference material that has been placed in the public domain by the OECD.

An understanding of how the various stakeholders within PISA interact with each other is fundamental to successful engagement with this project. This chapter provides information about the different stakeholders involved in PISA and, more specifically, details the methods and protocols for communication between the National Centres and the international contractors.

2.2. Communications among the PISA Stakeholders

2.2.1. The PISA Governing Board, the OECD Secretariat, and the International Contractors

To fully understand the relationship between the National Project Managers (NPMs) and the international contractors that manage PISA on behalf of the OECD, consideration needs to be given to the wider context in which the project operates. International contractors do not have a direct relationship or direct contact with the PISA Governing Board (PGB) unless invited to do so. Rather, international contractors report to the PGB through the OECD Secretariat and implement the project on the PGB's behalf. The relationship between NPMs and the international contractors focuses on issues related to project implementation.

Therefore, if NPMs wish to access PGB documents or to have matters officially addressed at the PGB meeting on behalf of their country, they need to discuss it with their national PGB representative. However, the international contractors are always willing to consider issues raised by National Centres relevant to their respective areas of responsibility and to forward them to the OECD Secretariat when appropriate.

2.2.2. Subject Matter Expert Groups

The international contractors are responsible for convening the Subject Matter Expert Groups and the Questionnaire Expert Group. This includes providing information to expert group members and making arrangements for expert group meetings. Information from National Centres forwarded to expert groups includes national item reviews and responses collected through the Field Trial and Main Survey Review exercises. Where appropriate, the international contractors also forward ad hoc advice and comments received from National Centres. As with the previous cycle, the OECD Secretariat is responsible for all aspects related to the Technical Advisory Group and its meetings.

2.2.3. The General Public

The PISA Portal does not allow for public access because it contains confidential materials, but public materials are available through the OECD PISA website: http://www.oecd.org/pisa.

The international contractors do not engage directly with the general public except with the express permission of the OECD Secretariat. Otherwise, all information to the general public is provided through the OECD or through National Centres. When the international contractors receive queries from the general public, they direct individuals to information already in the public domain. The following are posted on the OECD website and are available for public download:

- PISA frameworks

- PISA technical reports

- PISA databases without confidential or secure information

- Contact details of PISA NPMs

- Links to other sites where appropriate and as they become available

International contractors do not release material or data that is not in the public domain.

While National Centres need to actively engage the general public, in particular the education communities within their countries, they can only use PISA information already authorised and released by the OECD for public use. It is essential that all embargoes on project information and data be respected.

2.2.4. The Academic and Research Community

The international contractors also receive queries from academics and researchers who work in organisations not directly involved in PISA. Such requests usually relate to the methodologies used in PISA. Where possible, the international contractors should respond to such queries in

the spirit of academic co-operation and collaboration. However, the contractors do not have extensive resources to engage in such discussions.

International experts often present and publish papers on matters related to PISA in academic forums. Such papers are based on information and data in the public domain, and analyses and interpretations made in such papers may or may not reflect the views of the OECD.

PISA is designed to promote free and open exchange among countries on matters related to education and actively encourages further analysis and interpretation of the PISA data set. However, because the PISA international database is publicly available, neither the OECD nor the international contractors have direct control over such analyses and interpretation of results.

2.3. Communication between National Centres and International Contractors

Project implementation is the primary focus of the National Centres' exchanges with the international contractors. The international contractors seek to provide National Centres with the appropriate information and support to implement the project to the required standards within agreed-upon timelines. The international contractors will continue to promote free and open exchange between participants while maintaining a strong task focus.

In their communication with National Centres, the international contractors are required to respect and follow certain protocols, in particular the need for communication to the National Centre to go through the NPM or an authorised delegate of the NPM. The international contractors also need to ensure that all communications with National Centre staff members are with individuals subject to confidentiality agreements. Further, the international contractors cannot formally discuss matters with National Centres that are in the domain of the PGB. Similarly, countries are also required to respect and follow certain communication protocols that are in place to ensure an accurate and timely response.

2.3.1. Participant Contact Details

Contact information for PISA participants can be found on the PISA Portal under "Home/Contacts" and "Links/Contacts." The contact details of members of National Centres, the OECD, international contractors, and experts are displayed. NPMs should note that this information is confidential and should be used with appropriate discretion for the purpose of the PISA project only.

Contact Information

To ensure effective communication with National Centres, the international contractors need to maintain up-to-date contact information. This includes contact details for NPMs as well as additional national team members as appropriate (e.g., Data Manager, Sampling Manager, etc.). Contact details will be submitted via a form and should be sent to PISA-GeneralQueries@westat.com.

For each member, the following contact information should be submitted:

- Title - You may select from the following options: Mr., Mrs., Ms., Dr., or Prof.

- Last Name

- First Name

- Email

- Country

- Organisation

- Phone number - You may specify one or more phone numbers.

- Roles - You may specify multiple roles from among the following options: NPM, Data Manager, Sampling Manager, IT Co-ordinator, National Team (e.g., anyone else from the National Centre outside of the roles previously listed).

- Postal address - This information is helpful for international contractors but will be hidden in the normal view.

- Dist. list - A "Yes" indicates whether the individual or global email address should be included in the central distribution list for email dispatches. This will also indicate to the contractors that the individual is authorised for direct communication with international contractors.

These details will be displayed on the PISA Portal and will be accessible to all international contractors, the OECD Secretariat, and other National Centres.

Authorised National Centre Staff

Individuals other than the NPM who are allowed to communicate directly with international contractors and receive direct communication from international contractors will be identified by the "Dist. List" field in the contact details. This will enable international contractors' staff to communicate more effectively and confidently when queries are received from someone other than the NPM. It is nevertheless recommended that all communication from National Centres come from their primary email address, or that the primary email address be copied on all communication so the NPM has a complete project communication archive.

For all National Centre staff authorised to work in PISA, NPMs must ensure that appropriate confidentiality agreements are in place so that they have the authority to communicate with the international contractors on their behalf and have permission to access confidential information.

Maintaining Accurate Contact Details

Information for new contacts or changes to existing contacts in your National Centre should be forwarded to PISA-GeneralQueries@westat.com; the Core A General Queries team will ensure the information is updated on the PISA Portal. Please note that the international contractors are not allowed to update the official NPMs as their contact without the authorisation of the OECD Secretariat (see section below "Change of NPM").

Change of NPM

It is important that the international contractors maintain contact with the appropriate authorised NPMs within each National Centre. If a new NPM is being appointed, the OECD Secretariat must be informed directly by the PGB member. The OECD will inform international contractors, and at that point, international contractors will update the PISA Portal and begin communications with the newly nominated NPM.

2.3.2. Communication Structure

Daily Communication

All communication with the international contractors must contain clear subject headings that include the three-letter country code in square brackets AND the general nature of the inquiry (e.g., "[ZED] Query re: data submission date"). This type of subject line helps to ensure that emails are correctly monitored and tracked.

Emails are generally processed by international contractors within five business days (an acknowledgment is provided within one business day). However, if you do not receive a response from the international contractors within five business days, please send a follow-up email. Sometimes emails are lost because of server problems, spam filters, viruses, or a contractor's staff member may inadvertently overlook a response or issue. It is better to maintain contact than to leave issues unresolved.

In order to ensure accurate and timely response, PISA 2018 will offer several global email addresses. These email addresses, as well as a short description of the purpose of each, are provided below and can also be found on the PISA Portal under "Home/Support" and "Links/Support."

General inquiries and contact information <PISA-GeneralQueries@westat.com>	If, after looking at the emails below, you are still unsure whom to contact, please send general queries to this email and your email will be forwarded to the appropriate international contractor. Additionally, the General Queries email should be used for contact information. Please submit

	the contact form with either new or updated contacts to (PISA-GeneralQueries@westat.com).
PISA Portal **<**PISA-Portal@ets.org**>**	Used for questions or issues regarding the <u>PISA Portal</u>. Examples of questions or issues include: • Access to the PISA Portal or to specific parts of the PISA Portal (e.g., the Documents, Tasks/Workflow, or Translation tools areas, etc.) • Issues related to a new or existing user account • Questions related to the functionalities of the PISA Portal
PISA Questionnaires – Content Issues **<**PISA-QuestionnaireContent@dipf.de**>**	Used for questions regarding <u>the content of the computer- and paper-based questionnaires</u>. Examples of questions or issues include: • Questions regarding the content of the questionnaires • Questions regarding adaptations of questions or national questions • Questions regarding IDs used in the questionnaires • Questions regarding harmonisation • Global questions about the Questionnaire Adaptation Spreadsheet • Questions regarding the international options chosen for the questionnaires
PISA Questionnaires – Technical Issues **<**PISA-QuestionnaireTechnical@ets.org**>**	Used for questions regarding <u>technical problems encountered with the computer-based questionnaires or the questionnaire workflows</u>. Examples of questions or issues include: • Computer- and paper-based questionnaire workflows, status of tasks, and timeline for completing the tasks

	(e.g., deadlines, questions about the questionnaire workflows tasks, etc.) • Questionnaire Authoring Tool (QAT) • Authoring process for the questionnaires using the QAT • Testing of the authored questionnaires using the QAT • Monitoring the online questionnaires and their users during the Field Trial or the Main Survey data collection periods • Support for questionnaire users during the Field Trial or the Main Survey data collection periods • Support for retrieving data from online questionnaires during the Field Trial or the Main Survey data collection periods
PISA Student Delivery System or the Computer-Based Platform <<u>PISA-StudentDelivery@ets.org</u>>	Used for questions regarding the <u>Student Delivery System (SDS)</u> as well as the <u>Open-Ended Coding System (OECS)</u> coding software. Examples of questions or issues include: • SDS workflow, status of tasks, and timeline for completing the tasks (e.g., deadlines, questions related to the SDS workflow tasks, etc.) • SDS technical aspects or requirements (e.g., setup of the SDS, System Diagnostic, etc.) • Support for technical issues related to the SDS (e.g., enable launching the Student Delivery, unable to login, etc.) • SDS testing plan or process (e.g., crashes, wrong language displayed, etc.) or any of its parts (e.g., testing of the cognitive or questionnaire parts within the SDS) • OECS software, including its technical aspects or requirements, problems in

	generating PDFs, support for retrieving data, etc. • Support for technical issues related to the XLIFF Editor Open Language Tool (e.g., unable to open an XLIFF file, etc.)
PISA Cognitive Tests <<PISA-Cognitive@ets.org>>	Used for questions regarding the <u>computer- and paper-based cognitive tests, such as the domains of Reading, Scientific, or Mathematical Literacy, or Global Competence</u>. Examples of questions or issues include: • Questions regarding framework, characteristics of the domains or items, and summaries or overview of the instruments • Questions regarding the integrated designs and the test flow used in the SDS • Questions regarding the options chosen for the cognitive (e.g., Financial Literacy, etc.) • Issues related to the languages used for the cognitive (e.g., language borrowed, specification of languages by domain, etc.) • Cognitive workflows, status of tasks and timeline for completing the tasks (e.g., deadlines, questions related to the cognitive workflow tasks, etc.) • Content of the specific cognitive units for both paper- and computer-based cognitive materials • Content of the orientation modules used in the SDS • Functionalities of CBA cognitive units • Cognitive paper booklets, including process for assembling them, content or corrections cover pages, special requirements for printing, etc.

	• Coding design, guides content, and process
cApStAn (Linguistic Quality Control) <pisa.verif@capstan.be>	Used for questions or issues regarding <u>the linguistic quality control of the questionnaires and cognitive items</u>. Examples of questions or issues include: • Timeline for submitting translations for verification or final check • Timeline for receiving verification or final check feedback • Verification process (including final check)
Béatrice Halleux (Translation) <beatrice.halleux@skynet.be>	Used for questions or issues regarding <u>translation of the computer- and paper-based cognitive tests and translation referee reviews</u>. Examples of questions or issues include: • Language(s) of testing • Translation Plan: translation procedures, borrowed versions, etc. • Trend change request process • Negotiation of corrections that require follow-up • General language issues
PISA Survey Operations <PISA-SurveyOperations@westat.com>	Used for questions regarding the <u>school-level materials, international PISA Quality Monitors, and other tasks related to survey operations</u>. Examples of questions or issues include: • School-level materials (e.g., deadlines, Materials Adaptation Form, manuals, scripts, and forms) • International PISA Quality Monitors (e.g., nominations, deadlines, school test dates, etc.)

	• Test Administrator training
PISA Sampling <PISA-Sampling@Westat.com> *and* **PISA Sampling - Email Archive** <PISA-SMPArchive@westat.com> *(**IMPORTANT:** This archive email address is **NOT** monitored and is only used for **archiving all sampling related email**. This email should **always** be in the CC: list of any sampling- or KeyQuest (KQ)-related emails you write or to which you respond, but never in the TO: list.)*	Used for any questions or issues regarding <u>school or student/teacher sampling</u>. Examples of questions or issues include: • Questions about the required school and student sample sizes for PISA 2018 • Questions about when the Field Trial Sampling Guidelines will be released • Issues with finding a sampling task template file recently released on the PISA Portal • Questions about how the student response rate is calculated • Questions about whether or not school type X needs to be included on the school sampling frame for PISA Note that the response to your email will come either from Sheila Krawchuk of Core C Sampling or the country statistician from Core C Sampling with whom you are or will be working.
PISA Within-School Sampling Software <PISAKQhelp@acer.edu.au>	Used for any questions or issues regarding <u>the within-school sampling software</u>. Examples of questions or issues include: • Questions about when the Field Trial version of the software be released • Questions about which team member needs to attend the KQ training at the upcoming meeting • Issues with finding duplicate records in the student tracking file • Issues with the X report not showing all entered explanations
PISA Data Management	Used for questions regarding all aspects of Data Management procedures including <u>the Data Management Expert software (DME)</u>,

<PISA-DataMgmnt@ets.org>	Open-Ended Response System (OERS) paper-based coding software, data cleaning, and national data codebooks. Examples of questions or issues include: • Data Management and data analysis workflows, status of tasks and timeline for completing the tasks (e.g., deadlines, questions related to data export, data delivery, data processing, report delivery, certified data etc.) • DME technical aspects or requirements (e.g., setup of the DME, specific coding/adaptations in the software) • Codebook generation and distribution (e.g., language of national codebook, how to make adaptations to codebooks, timeline for receiving Field Trial and main survey codebook templates) • Support for technical issues related to the data management (e.g., unable to edit variables in the DME software, problems with exporting data, issues captured in consistency checks, etc.) • OERS software, including its technical aspects or requirements, support for retrieving data, etc.
PISA Meetings **<PISA-Meetings@westat.com>**	Used for questions or issues regarding NPM and training meetings. Examples of questions or issues include: • Problems with or questions about registration forms • Questions about visa letters
OECD Secretariat <Sophie.Vayssettes@OECD.org>	Questions about contracts, participation in international options, reporting, communication with contractors

Email Dispatches

In dispatching materials to National Centres, the international contractors will adhere to the following practices:

- Send emails without large attachments, stating the purpose of the dispatch, and listing all documents that are part of the dispatch;

- Upload all project documents released in that dispatch to the PISA Portal and clearly state via email the location of the files on the website so that NPMs can download individual files or selected files as a zip folder; and

- Follow up on all "delivery failure" notifications.

If for some reason an international contractor has to dispatch materials or large files by email, a preliminary email without the attachments will be sent first followed by a subsequent set of emails with the attachments.

Please ensure that you always have sufficient storage in the PISA mailboxes, as email is a primary means of communication with the contractors.

The PISA Portal - The PISA Website

The international contractors are continuing to develop the PISA Portal website (http://pisa.ets.org/portal). This is a secure website accessible using a login and password. Each National Centre will have a set of NPM and Reconciler (the reconciler account will be mainly used for the translation and verification tasks) logins that will be sent to the NPM by the PISA Portal team and can be used by the national team at the discretion of the NPM. If NPMs would like other people in the National Centre to access the website, they can share access details with trusted persons who are subject to a confidentiality agreement. It is the responsibility of the NPM to ensure that only authorised staff members have access to the website and to change the password if necessary following a staffing change at the National Centre. It is mandatory to change the password associated with each login every 90 days.

Dissemination of Documents and Information

All documents released to National Centres will be made available on the PISA Portal. When specific confidential documents are dispatched to your National Centre, they will also be posted on the PISA Portal and an email will be sent to your National Centre outlining the access instructions.

The PISA Portal also includes a calendar page with information about meetings and key dates for the project. NPMs should wait until registration opens before making travel arrangements for meetings. The invitation is the official confirmation of meeting dates and location.

Submission of Project Implementation Documents and Information

For PISA 2018, all National Centre project implementation documents and information will be submitted to the international contractors through the PISA Portal, using the upload document facility. The latest versions of these documents and information will be displayed on the PISA Portal. Only your authorised National Centre staff and international contractors can view these pages. The submission of materials through the website provides greater version control and allows the international contractors to distribute information more effectively to key international contractor staff.

Some of these implementation documents and information need to be "agreed upon" by the responsible international contractors' members. The aim is for agreement to be reached in a timely manner. The definition of "agreed upon" as used in relation to the PISA Standards is shown in Exhibit 2.1.

Exhibit 2.1.   'Agreed-Upon' in PISA Standards

Agreed upon - variations and definitions agreed upon between the National Project Manager and the international contractors

Options and Agreed-Upon Variations

NPMs will negotiate variations and options selected for their countries with either the OECD or the international contractors depending on the topic, and details will be explained in a different document. The international contractors will maintain a record of all agreed-upon variations as well as national and international options. This will allow National Centres to check that international contractors' records relating to these matters are correct, thereby avoiding confusion.

Timeline for Acknowledgment of Queries and Information Submission

Where negotiation on information is required, you will receive feedback on your submitted proposal from a qualified international contractors' staff member within five working days. When a query or implementation document sent by you requires more time to process, a response will be sent to your National Centre within five working days to give an indication of the time required to resolve the query.

In Exhibit 2.2, PISA Standard 18.2 relates to information submission in accordance with agreed-upon timeline, and Standard 16.1 relates to communication with the contractors.

Exhibit 2.2.   Information Submission and Communication with the International Contractors –PISA Standards

Standard 18.2   The following items are submitted to the international contractors in accordance with agreed upon timelines:

- the Translation Plan
- a print sample of booklets prior to final printing, for countries using the paper-based instruments (where this is required, see Standard 13.1 and Note 13.1),
- results from the national checking of adapted computer-based assessment materials and questionnaires,
- adaptations to school-level materials,
- sampling forms (see Standard 1),
- demographic tables,
- completed Field Trial and Main Survey Review Forms, and
- other documents as specified in the PISA operations manuals.

Standard 16.1   The international contractors ensure that qualified staff are available to respond to requests by the National Centres during all stages of the project. The qualified staff:

- Are authorised to respond to National Centre queries,
- Acknowledge receipt of National Centre queries within one working day,
- Respond to coder queries from National Centres within one working day,
- Respond to other queries from National Centres within five working days, or, if processing the query takes longer, give an indication of the amount of time required to respond to the query.

CHAPTER 3 – THE PISA PORTAL

3.1. Overview

The PISA 2018 Portal (http://pisa.ets.org/portal) is the central website for PISA 2018 and is maintained by the international contractors. It is one of the main channels for communication between the international contractors and participating National Centres.

All released information and documents are placed on the PISA Portal, including:

- Customised project tasks and deadlines

- Key dates for meetings and dispatches

- Test instruments for the Field Trial and Main Survey

- Manuals and guidelines for project operations

- Contact information for all parties involved in PISA 2018

- Glossary

- Summary of national information (e.g., Field Trial and Main Survey dates, languages, international options, etc.)

3.2. National Centre Website Access

The PISA Portal is a secure website accessible using a login and password. As noted in Chapter 2, each National Centre has a set of National Project Manager (NPM) logins and Reconciler accounts. The NPM is responsible for sharing these logins with the National Team at his or her discretion based on agreed-upon confidentiality procedures established at the National Centre. It is the responsibility of the NPM to ensure that only authorised staff members have access to the website and to change the password if necessary following a staffing change at the National Centre. The password associated with each login will need to be changed every 90 days.

The NPM is the main contact in the National Team regarding all issues with the PISA Portal. As such, in case of technical difficulties related to the PISA Portal, the NPM should contact PISA-Portal@ets.org.

> **NOTE: The account information will be sent ONLY to the nominated NPM, who has full responsibility for controlling who has access to the PISA Portal.**

3.3. Website Structure

The PISA Portal is composed of five main areas called "tabs." Each tab is a place designated for certain activities or to hold specific information or documents. Exhibit 3.1 gives a global overview of the organisation of the PISA 2018 Portal.

Exhibit 3.1. Structure of the PISA 2018 Portal
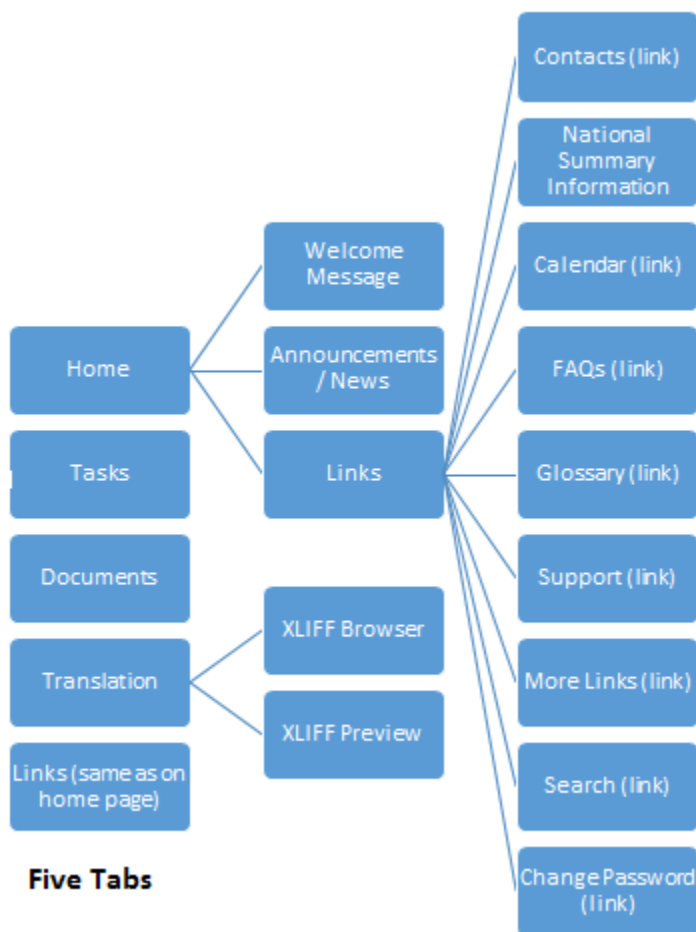
The five tabs of the PISA Portal are "Home", "Tasks," "Documents," "Translation," and "Links."

- The "**Home**" tab includes general information regarding the project, including announcements and news. It also provides links to project management tools, such as the summary of national information, calendar, glossary, and a tool to change passwords.

- The "**Tasks**" tab includes the different tasks and deadlines a country will have to complete through the project. Each task will be part of a workflow that allows countries and international contractors to exchange documents or files through a secure and structured way that also allows version control over the various documents/files.

- The "**Documents**" tab contains the meeting documents, manuals, guidelines, and all materials needed for the project. This part is updated on a regular basis by the international contractors.

- The "**Translation**" tab provides tools used for the translation of the cognitive instruments. The tools provide users with a way to preview translated and source versions of the CBA units.

- The "**Links**" tab groups several useful links that can also be reached via the "Home" tab.

3.4.   Questions, Comments, or Suggestions

Your feedback is appreciated. If you have any questions, comments, or suggestions about the PISA Portal, please send your comments to PISA-Portal@ets.org.

CHAPTER 4 – FIRST REVIEW PHASE

4.1. Overview of Tasks

During this phase, assessment instruments and questionnaires will be developed in both English and French, finalised, adapted and translated. Preparations for the Field Trial will start with sampling tasks, the Translation Plan, and the Student Demographic Study Programme Table. This also includes seeking comments from national representatives and members of subject area groups on draft materials for Reading Literacy, Global Competence, and questionnaires as well as any optional instruments under consideration for the Field Trial.

There are many tasks to be completed in a short span, so it is important that you have a clear plan in place to organise your time. It is also important to ensure that you have enough support staff to assist.

Your preparation will include the following tasks:

- Establish a National Centre: Submit contact information to international contractors and establish security protocols

- Participate in the instrument development process: Submit stimuli, items, and review instruments

- Initiate preparations for Field Trial sampling: Establish test dates, population definition, and language distribution

- Negotiate details about the study programmes

- Negotiate your Translation Plan with the International Translation and Verification Referee

- Indicate your participation in international and/or national options

- Prepare for the translation and verification phases

- Attend the first National Project Manager (NPM) meeting in March 2016

The timeline for most tasks is tailored to your country based on the data collection dates. The "Tasks" tab in the PISA Portal lists these tasks and provides a description and due date for your country. The relevant documents will be released according to the timeline.

Exhibit D.1 in Appendix D shows a tentative schedule of tasks associated with the First Review Phase. Procedures associated with these activities are briefly described below; more detailed documentation will be released closer to the actual task dates.

4.2. Key Tasks during the First Review Phase

4.2.1. Establish a National Centre

Submit Contact Information to International Contractors

It is important for the international contractors to have the most up-to-date information regarding the structure of your National Centre to ensure effective communication. You are asked to inform the international contractors early in the project for contact details for NPMs as well as additional national team members as appropriate (e.g., Data Manager, Sampling Manager, etc.). Please contact PISA-GeneralQueries@westat.com for additional questions. Additional information regarding this task is also explained in section 2.3.1 in Chapter 2.

Establish Security Protocols

Strict confidentiality when handling project materials is vital to protecting the integrity of PISA. This includes test items, draft questionnaires, data under embargo, and draft material provided to National Centres for feedback and comment. This also includes the list of sampled schools, as the publication of such a list could potentially breach confidentiality and security (for example, schools in the field later in the testing period could contact schools that were in the field earlier in the testing period).

It is a PISA Standard that formal confidentiality arrangements be established with all who are given access to the secure materials, including staff at the National Centre, sub-contracted staff (e.g., translators, coders, data entry staff, etc.), sub-contracted organisations (e.g., printers, etc.) and any others that could have contact with secure materials. This also applies to everyone who is given access to the PISA Portal.

Appendix B provides a sample confidentiality form that can be modified as required and used to formalise confidentiality arrangements.

You will need to exercise direct supervision and control of confidentiality arrangements for your National Centre.

You may also need to consider confidentiality requirements at the national level, such as legislative requirements related to school staff and student privacy.

If in doubt about the security status of any PISA material or about confidentiality requirements, seek confirmation from Core A Survey Operations by emailing PISA-SurveyOperations@westat.com.

The PISA Standard relating to security of material is shown in Exhibit 4.1 below.

Exhibit 4.1.   Security of PISA Test Materials – PISA Standard

> **Standard 11.1**   PISA materials designated as secure are kept confidential at all times. Secure materials include all test materials, data, and draft materials. In particular:
>
> - no-one other than approved project staff and participating students during the test session is able to access and view the test materials,
> - no-one other than approved project staff will have access to secure PISA data and embargoed material, and
> - formal confidentiality arrangements will be in place for all approved project staff.

4.2.2. Participate in the Instrument Development Process

Submit Stimuli and Items

PISA seeks to maximise item input from Reading Literacy and Global Competence experts in participating countries, as these are the only two domains for which new materials will be developed in this cycle.

To better ensure that the pool of new units reflects the cultural diversity across participating countries, the international contractors established a process that included the following phases:

- Stimuli submission: Countries could submit sample contexts and ideas for simulation activities for interactive units. This phase extended to 30 August 2015.

- Item development workshops: Workshops took place in April and May 2015 in three locations. Participants worked with stimuli submitted by countries to develop new items.

- Items submission: This phase extended through 30 September 2015 and provided an opportunity for countries to develop items to specific stimuli.

These materials could be submitted in English, French, German, Italian, Japanese, and Spanish. Material submitted in other major languages of instruction among PISA countries could also be accepted following prior consultation with the Core A and Core D international contractors.

Review Instruments

For both Reading Literacy and Global Competence, in addition to submission of stimuli and items, countries have the opportunity to review and provide feedback on units developed by the test development team and participating countries. This is an opportunity for countries to review the stimuli and items developed with respect to the curriculum within a country and to its cultural sensitivities, which are important parts of the test development process. Review of Reading Literacy and Global Competence materials will be available on the following timeline:

- The first batch of new Reading Literacy materials was available for national review on 31 August 2015 and feedback was expected by 11 September.

- The first batch of new Global Competence materials was available for national review on 21 September 2015 and feedback was expected by 2 October.

- The second batch of new Reading Literacy materials will be available for national review on 26 October 2015, with feedback expected by 6 November.

- The second batch of new Global Competence materials will be available for national review on 16 November 2015, with feedback expected by 27 November.

For the questionnaires, countries will be provided with two opportunities to review and comment on the international master version. The first opportunity for reviewing questionnaire material will take place in mid-November 2015 and will focus on its relevance to the educational system, its relevance for the target population, and any sensitivity and translation issues. All feedback will be summarised and considered during the Questionnaire Expert Group meeting that is expected to take place in mid-December 2015. Following this meeting, proposed Field Trial questionnaires will be prepared and shared with countries at the end of December 2015 for a second round of review. Feedback will be expected by mid-January 2016.

4.2.3. Initiate Preparations for the Field Trial Sampling: Establishing Test Dates, Population Definition, and Language Distribution

Discussion of sampling issues for the PISA 2018 survey is part of the March 2016 NPM Meeting. The Field Trial Sampling Guidelines, to be released in March 2016 and located on the PISA Portal, will be the basis for this discussion. Prior to this, in late 2015, you will already have submitted and had approved your cycle-wide Sampling Task 0 (ST0) regarding your testing languages for both the Field Trial and the Main Survey. Also prior to the NPM Meeting, your initial country cycle-wide sampling plans will have been released for your updates about sampling options. Following this meeting, you should discuss these details with your national committee(s). You should then submit your proposed sampling option ideas on your revised sampling plan no later than 1 April 2016.

Additionally, you should submit your cycle-wide testing dates and population definition through Sampling Task 1 (ST1) in June 2016. To avoid overlap issues of the population birth dates between the Field Trial and Main Survey testing periods, you will need to provide an indication of your Field Trial and Main Survey testing dates at the same time. If you have participated previously in PISA, the testing dates (months and approximate day) should be the same as in prior surveys.

For countries that participated in the PISA 2015 Main Survey, the information on test dates and population definition from that cycle will form the starting point of the 2018 ST1.

The PISA 2018 Field Trial data collection needs to be completed within a period of no more than 6 weeks during the period of 1 March 2017 to 31 August 2017. For new countries, when considering your proposed testing period, keep in mind that a great deal of work is required

between the release of the source version instruments in April 2016 and the beginning of testing. An overview of this work is described in Chapter 5 of this manual. If you are an early-testing country that begins your Field Trial testing period in March 2017, you should ensure that you have the resources available for this very intense period of the project. You will need to negotiate a timeline for the verification of your Field Trial instruments before end February 2016. This Preferred Verification Schedule (PVS) will be based on your Field Trial start dates.

Cycle-wide school and PISA student information is provided in Sampling Task 2 (ST2), which should be submitted in July 2016. Included in this will be your estimated Field Trial and Main Survey assessment rates. Understand that an assessment rate is not a response rate. The assessment rate takes into account all student losses (absent, refusal, ineligible, and excluded) from the students sampled. Additionally, if your country has different school types that contain eligible PISA students, you will be asked to document the approximate proportion of 15-year-olds in the various school types. You will also be asked about your school stratification plans for the Field Trial and Main Survey.

For countries that participated in the PISA 2015 Main Survey, the information on the 2015 ST2 will form the starting point of the 2018 ST2.

After the submission of both ST1 and ST2, Core C Sampling will provide feedback within five working days. Once agreed upon, this information will be used as a reference point for a wide range of activities throughout the survey administration period.

4.2.4. Negotiate Details about the Study Programmes

Prior to the negotiation of questionnaire and manual adaptations, a number of questions about programmes of study need to be discussed with you.

Core C Sampling will collect information on study programmes for use in the within-school sampling software. This study programme information is used by Core A Questionnaire Content. Collection of this information will need to take place early in the cycle in January 2016 because adaptations to trend questionnaire items are negotiated from March to July 2016.

For countries that participated in the PISA 2015 Main Survey, the information on study programmes will form the starting point of these discussions.

4.2.5. Negotiate Your Translation Plan with the International Translation and Verification Referee

The Translation Plan documents all the processes you intend to use for activities that are related to translation, adaptation, and languages. It collects, for example, information on translation procedures, translators and reconcilers, as well as testing languages for the different instruments and coding guides used for the Field Trial and Main Survey (for both major and minor languages). The PISA Standard in relation to the negotiation of the Translation Plan is shown in Exhibit 4.2 below.

Exhibit 4.2.   Negotiation of Translation Plan – PISA Standards

> **Standard 18.1**   An agreed upon Translation Plan will be negotiated between each National Centre and the international contractors.

The Translation Plan will be dispatched in early December 2015, and you will need to upload a draft version of it to the PISA Portal by 24 December 2015. Additional details will be provided with a full description of the task.

4.2.6. Indicate your Participation in International and/or National Options

The core of PISA is a test and questionnaire administered to randomly selected students representing a defined target population (mostly 15-year-old students but also a few 16-year-olds) and an additional School Questionnaire administered to the schools of the participating students. There are also national and international optional components within PISA.

Countries participating in international options receive support for their implementation from the international contractors in the same manner as for the implementation of "core" survey components. When considering international options, countries need to keep in mind that participating in them will require additional national resources (e.g., staff, printing, administration, meeting attendance, data processing, etc.).

National options, however, are not supported at the international level and are not developed as part of the international survey design, but rather by individual participating countries that may wish to address a specific policy or research issue. To ensure that national options do not affect the data used for the international comparisons (e.g., because of test fatigue, learning effects from national test items, etc.), proposals for national options must be discussed and agreed upon with the international contractors. National options often result in additional costs for the National Centre as well as for international contractors, and a national option contract will need to be established directly with the Core A contractor. In general, Core C Sampling co-ordinates sampling options via your cycle-wide sampling plan, and the Core A Contractor (through ETS) co-ordinates all other options. This will be clearly communicated and negotiated with countries in advance.

For brevity, international and national options are at times referred to simply as "optional components" in this manual.

Understand International Options

Consistent with previous cycles, PISA 2018 will offer a set of international options. The available options include an assessment of Financial Literacy and optional questionnaires to students (Information and Communication Technology [ICT] Familiarity, Educational Career, and Well-being), teachers, or parents. Your country must inform the OECD Secretariat if it wishes to participate in any of these options by **30 November 2015**. Note that countries must conduct a Field Trial for an international option to be permitted to implement it in the Main Survey. Also,

note that some of these options, such as the Teacher Questionnaire and the assessment of Financial Literacy, would require special sampling arrangements and negotiations with Core C Sampling. Practical considerations, such as budget and staffing, should also be taken into account.

Understand National Options

You must also notify the international contractors of any national options you plan to implement and seek agreement for these plans in advance. A national option is defined in the PISA 2018 Technical Standards in Exhibit 4.3 below. The cycle-wide sampling plan seeks to capture any such options that could impact sampling, but there may be other options that need to be communicated separately. Note that countries must conduct a Field Trial for most of the national options, with particular attention to sampling, to be permitted to implement them in the Main Survey.

Exhibit 4.3.   Definition of National Options – PISA Standards

> A national option occurs if:
>
> a)   National Centre administers any additional instrumentation, for example a test or questionnaire, to schools or students that are part of the PISA international sample. Note that in the case of adding items to the questionnaires, an addition of five or more items to either the school questionnaire or the student questionnaire is regarded as a national option.
>
> <div align="center">OR</div>
>
> b)   National Centre administers any PISA international instrumentation to any students or schools that are not part of an international PISA sample (age-based or grade-based) and therefore will not be included in the respective PISA international database.

The PISA Standards relating to the implementation of national options are shown in Exhibit 4.4 below.

Exhibit 4.4.   National Options Standards

> **Standard 10.1**   Only national options that are agreed upon between the National Centre and the international contractors are implemented.
>
> **Standard 10.2**   Any national option instruments that are not part of the core components of PISA are administered after all the test and questionnaire instruments of the core component of PISA have been administered to students that are part of the international PISA sample.

In previous PISA surveys, some countries developed a small number of questionnaire items of national relevance and inserted them into the international questionnaires following negotiation with the international contractors. These additional questions are referred to as national extensions and impact the development process and add work to everyone involved including national centres, all contractors as well as respondents (students, teachers, administrators

and/or parents). They also add risks to the project because technical expertise is needed for modifying the computer-based files as errors are easily introduced, sometimes resulting in software crashes. But most importantly, these extensions may impact data quality when the instruments become longer and result in fatigue and missing data (or impact instruments coming afterwards). The inclusion of these additional questionnaire items should be negotiated with Core A Questionnaire Content at the time of negotiating the adaptation of the international questionnaires through the Questionnaire Adaptation Spreadsheet (QAS). National extensions beyond the pre-set limit of five questions per questionnaire may be negotiated through a separate national option contract. Note that the content of national extensions are not subject to verification.

Another commonly used option is the grade-based sample. This involves an additional grade-based population that participates in the full range of PISA test and questionnaire instruments. Grade-based samples will be considered as a national option and subject to a separate contract with the Core A contractor.

You will need to discuss these national options with your PISA Governing Board member, committees, and other stakeholders where appropriate in order to come to a decision regarding participation. Practical considerations, such as budget and staffing, should also be taken into account.

Understand the UH Form (One-Hour Form) and UH Questionnaire for Students with Special Educational Needs

This option involves the administration of a shorter test and questionnaire to students with special educational needs. Its primary purpose is to assist some countries to achieve the PISA coverage standard. This option will be offered to countries implementing PISA as both computer- and paper-based assessments.

4.2.7. Prepare for the Translation and Verification Phases

The translation and verification schedule for PISA 2018 will be tailored to each country's data collection period with fixed threshold dates. Translation and/or adaptation activities will start by early April 2016, soon after the March NPM meeting. Verification will start in September 2016 for most countries, but possibly before that date for early-testing countries. Therefore, very careful preparation and planning is required.

For PISA 2018, all new materials are in the computer mode. The amount of material to be translated will vary from country to country based on its participation in the previous cycles of PISA and will be discussed individually with each country.

Your pre-filled PVS will be made available to you on the portal in January 2016. This PVS will be pre-filled based on your Field Trial start dates and on estimated time needed to complete each step. If you agree with the proposed dates, you simply will be asked to confirm your agreement. If you wish to negotiate the proposed timeline, there will be an opportunity to do so at the March 2016 NPM meeting.

Additionally, your Translation Plan will need to be completed, submitted, and agreed upon prior to the NPM meeting in March 2016.

Prepare Adaptations/Translation of Instruments and Submit Instruments for Verification

The international contractors will prepare documents explaining the preparation of the Field Trial assessment and questionnaire materials. These will present National Centres with step-by-step instructions to learn what they need to prepare, how they need to prepare it, and by when they need to prepare it. Translation, adaptation, and verification are mentioned in the NPM Manual and will be described in detail in follow-up documents that will be released closer to the task period.

Material to Be Translated/Adapted

In general, NPMs need to develop one version of the test instruments and questionnaires per language of instruction in the schools included in your national sample. The number of testing languages is agreed upon with Core C Sampling via cycle-wide Sampling Task 0.

All test materials, questionnaires, and coding guides must be translated and/or adapted. A document listing all materials to be translated and/or adapted and their approximate volume (word and character count) in the English source version will be made available to you once all master materials are finalised. It is designed to assist you in discussing costs and deadlines with your translators and in keeping track of the pieces of work completed or still under translation.

Note that most of the units will have undergone extensive review since the country reviews and many will undergo further review after Field Trial selection. Therefore, units from the previously distributed rounds should not be considered ready for translation and adaptation.

PISA Standards in relation to the equivalence of the test and questionnaire instruments and manuals, and the submission of materials for verification, are shown in Exhibit 4.5 below.

Exhibit 4.5.   Equivalence of Test and Questionnaire Instruments and Manuals – PISA Standards

> **Standard 4.1**   The majority of test items used for linking are administered unchanged from their previous administration. The computer-based versions include instructions as to the appropriate response mode for each item and may require some minor revision as noted in 4.2 below.
>
> **Standard 4.2**   All assessment instruments are psychometrically equivalent to the source versions. Agreed upon adaptations to the local context are made if needed.
>
> **Standard 4.3**   National versions of questionnaire items used in previous cycles will be administered unchanged from their previous administration, unless amendments have been made to source versions.
>
> **Standard 4.4**   The questionnaire instruments are equivalent to the source versions. Agreed upon adaptations to the local context are made if needed.
>
> **Standard 4.5**   School-level materials are equivalent to the source versions. Agreed upon adaptations

to the local context are made if needed.

Standard 5.1 The following documents are translated into the assessment language in order to be linguistically equivalent to the international source versions.

- All administered assessment instruments
- All administered questionnaires
- The Test Administrator script from the Test Administrator (or School Associate) Manual
- The Coding Guides

Standard 5.2 Unless otherwise agreed upon, school-level materials are translated/adapted into the assessment language to make them functionally equivalent to the international source versions.

Note 5.1 The quality assurance requirements for this standard apply to instruments that are in a language that is administered to more than 10% of the target population.

Standard 18.3 Questionnaire materials are submitted for linguistic verification only after all adaptations have been agreed upon.

Standard 18.4 All adaptations to those elements of the school-level materials that are required to be functionally equivalent to the source as specified in Standard 5.2, need to be agreed upon.

Recruit Translators

To ensure that all translated/adapted materials meet the PISA Standards, it is a requirement that national versions of all instruments used in the assessment (i.e., the test materials [items and stimuli], the Student and School Questionnaires, and any optional questionnaire) be developed through a **double-translation-and-reconciliation procedure.** First, two independent translators should translate the source material into the target language. A third person should then reconcile these two translations, that is, merge them into a single national version.

For the core assessment materials (i.e., tests), the international contractors will develop two parallel source versions of the test materials: one in English and the other in French. It is recommended that each country use the English source version for one of the translations into the national language and the French source version for the other. In previous PISA surveys, double translation from the two source languages proved to be most effective in reducing translation errors and producing high-quality material.

For the computer-based questionnaires, the international contractors will develop one authored version of the questionnaires in English and provide the French version of the questionnaires in text to be used for reference. In this case, each country will start with the English source version for its translations into the national language and refer to the French paper source version as appropriate. For the paper-based questionnaires, word versions will be provided in both English and French.

In countries with difficulties finding competent translators from both languages, an alternative (but also efficient) method could be double translation and reconciliation from one of the source languages followed by extensive cross-checks against the second source language.

In this translation and adaptation workflow, the role of the reconciler **or the person in charge of adapting one of the source versions, the Spanish base version, or a verified borrowed version – who will be referred to as "adaptor" –** is particularly important. Please select for this task your most competent translator or a researcher from your staff who has expertise in test development in the domain being tested and in the source and target languages. He or she should also have fluent writing skills, excellent grammar and spelling, and a taste for work that requires great attention to detail.

The main task of the reconciler will be to merge the two independent translations in such a way that the resulting national version is as close as possible to the source versions, that all possible translation errors have been corrected, and that the wording is as fluent as possible.

A second important task for the reconciler or the adaptor will be to document all national adaptations that the translation team deems necessary in the material. How to record these adaptations is detailed in material preparation documents that will be posted to the PISA Portal.

You and the reconciler should discuss any proposed national adaptations with relevant national committees or other experts (e.g., curriculum and assessment groups) prior to their finalisation.

In general, the translation team will therefore include a minimum of three persons: two translators and one reconciler, with variations possible. Due to the significant volume of test material and, for new countries, due to having four different domains, you may consider assigning the translation tasks to parallel teams of translators that would work separately.[3]

Note that no double-translation procedure is required for coding instructions and coding guides. The international source version of these materials will be distributed in English and French. One of your translators should translate the coding descriptions and student sample responses from one of the two source versions; then the reconciler should review the translation (referring to the other source version as much as possible), check that the translation and adaptation guidelines were followed, and that the translation is consistent with the final version of the item.

It is strongly advised that professional translators or a specialist company be employed rather than friends or bilingual acquaintances. The translators responsible for this work must have the following:

- A perfect command of both the source language and the target language.

- A solid command of the domains covered by the test, in particular for the domains of Reading Literacy and Global Competence, and (for new countries) Scientific Literacy and Mathematical Literacy. It may, therefore, be necessary to turn to pairs of different translators for the translation of each of the different domains.

- An in-depth knowledge of the school system of the country (in particular, for the School and Student Questionnaires). The knowledge of the characteristics of the school systems of

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[3] Translations of science and mathematics items and reading trend items are not expected to be necessary for countries that participated in PISA 2015.

other countries — particularly those where the source language is used — can also be a valuable asset.

For the paper-based assessment (PBA), the translators and the reconciler should be sufficiently familiar with Microsoft Word to be able to use a copy of the source version of the material as a basis for their translation (where they will overwrite the English text, replacing it with the text in their target language). This would be a very efficient way of reproducing the layout, styles, fonts, and graphic material from the source version while reducing the risk of errors or omissions.

For the computer-based assessment (CBA), it would facilitate the process if the translators and the reconciler are already familiar with CAT (computer-aided translation) tools such as TRADOS, MemoQ, Wordfast, Dejà vu, OmegaT, Virtaal, Swordfish, or the Open Language Tool. For CBA, translators and the reconciler will need to work from a translation tool to edit the XLIFF[4] files. The National Centre will need to provide training to the translators and reconciler on the required tools. It would also be beneficial to ensure that your translators have good, high-speed access to the Internet and can easily communicate via email.

NPMs are invited to organise training sessions for their translation team based on the PISA 2018 Translation and Adaptation Guidelines, and on the information received during the first translation meeting. A Translation Kit, which will include a training module with hands-on exercises and sample units (both in English and French source versions), will be made available to all National Centres for use in the translators' initial training. A translation and adaptation workshop for the March 2016 NPM meeting and the Translation Kit will be made available to National Centres in March 2016.

The PISA 2018 Translation and Adaptation Guidelines are very important for this training and for the later work of the team. It is therefore essential to include this document in the translators' assignment specifications. In the training session organised by the NPM to familiarise the translation team with the materials and with the PISA 2018 Translation and Adaptation Guidelines, it is recommended that time be spent on instructions on the electronic aspects of the job, including the CAT tools and the PISA Portal.

For the PBA items, all translators should know how to:

- access the text boxes in the graphics included in the materials in order to translate labels or captions;

- use the "track changes" function when revising the materials;

- use the spelling and grammar tools included in Microsoft Word;

- name or rename electronic files to avoid confusing old and new versions of a same translated unit;

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[4] XLIFF: tagged XML localisation interchange file format, the format used in PISA 2012 and 2015 and for all CBA materials.

- apply styles and formats;

- use the Excel spreadsheets where they will document any suggested adaptations; and

- access and use the PISA Portal.

For the computer items, in addition to the above-listed basics, all translators should receive training on how to work with the translation tools provided and on how to preview the source and target versions of an item.

It is vital for the work of the translators to have the benefit of specialist supervision from the National Centre and/or from the experts of the National Committee of Experts, particularly in relation to the following:

- Psychometric quality of the tests

- Problems of content and terminology

- National adaptations

Establish Confidentiality Requirements for Translators

Translators, as with all persons who handle the materials (e.g., members of the national research team, the National Committee of Experts, secretaries, etc.), should be aware that all PISA material is under embargo and therefore must be kept **strictly confidential.** Please make sure that each translator signs a confidentiality agreement prior to starting the translation work.

A sample confidentiality form is provided in Appendix B of this manual. It can be adapted to suit National Centre requirements. Additional information was presented in section 4.1.2.

Co-ordinate the Work of the Translators

From the outset, it is imperative that translators receive clear guidance regarding their tasks as well as technical support (e.g., computer assistance, proofreading follow-up, processing of graphical elements, etc.) so this communication should be planned carefully. Because more than one translator (and often more than one team of translators) will have to deal with PISA material, it may help, for example, if from the very beginning, all translators receive common instructions on the range of issues relevant to them.

Agree on Verification Timeline

For PISA 2018, one of the time constraints is that a 6-month testing period is required for the fully authored CBA, meaning that all verified materials must have undergone final check and be "locked" in the platform as early as October 2016, depending on the data collection dates. For this reason, translation/adaptation will need to take place from April to August 2016, and the verification window will be from early July to mid-November 2016 for CBA items, depending on

the testing dates. Before the NPM Meeting in March 2016, Core D Translation Verification will send the PVS. Dates for submitting your materials for verification will have been pre-filled based on your testing dates, and you will be asked to approve them. If you wish to negotiate the dates, there will be an opportunity at the NPM meeting in March. (Note that your plans for adaptation of the school-level materials will be negotiated with Core A Survey Operations. Further details of this separate negotiation will be provided at a time noted in the "Tasks" tab.)

Countries will have the opportunity to request updates to the trend questionnaire materials during the adaptation negotiation. Core A Questionnaire Content will provide you with a customised Field Trial QAS, which will contain highlighted trend questionnaire items that need updating. You will provide relevant updates in the QAS when you provide adaptations for new questionnaire items. Note that adaptations to questionnaires need to be agreed upon with Core A Questionnaire Content before translation and verification can begin. The agreed-upon updates in the trend items will be centrally implemented during the verification. Core A Questionnaire Content will be available to negotiate your questionnaire adaptations starting in March 2016 and to process verification feedback on questionnaires on the dates agreed upon in the PVS.

Translated (and reconciled) CBA materials must be submitted for verification according to the dates agreed upon in the PVS. To achieve this, it is crucial for countries to begin translation and adaptation as soon as the materials are available.

It is important to keep in mind the following:

- For PBA countries, printing of paper-based materials will occur several months after verification. Core A Cognitive will centrally assemble booklets from verified units or clusters. Because countries do not need to assemble their booklets, the time constraints on printing will have little or no impact on the verification timeline.

- National Centres should expect staff to negotiate questionnaire adaptations from March 2016 to July 2016 and to process verification feedback on the dates agreed upon in your country's PVS.

- For CBA countries, once countries have processed verification feedback, they will upload post-verification versions of computer-based items to the PISA Portal, and Core D Translation Verification will check whether corrections requiring follow-up are correctly addressed. Layout issues will be addressed separately by Core A Cognitive.

4.2.8. Attend the First NPM Meeting in March 2016

Attendance at NPM meetings and international trainings are critical to your understanding of PISA 2018 tasks. Using the meeting agenda as your reference, you should carefully consider which of your staff should attend each meeting. PISA Standards in relation to meeting participation are shown in Exhibit 4.6 below.

Exhibit 4.6.   Meeting Attendance – PISA Standards

Standard 22.1   Representatives from each National Centre are required to attend all PISA international meetings including National Project Manager meetings and coder training. Up to 6 international meetings are planned per cycle.

Note 22.1 The length of these meetings vary from 3 to 5 days.

Standard 22.2   Representatives from each National Centre who attend international meetings must be able to work and communicate in English.

The first NPM meeting of the 2018 cycle will take place in March 2016 and your participation is essential. This meeting will present an overview of the project, review the timeline, explain roles and responsibilities, and present the integrated design. In addition, it will cover many important tasks associated with Field Trial sampling and the adaptation, translation, and verification of tests and questionnaires – both computer- and paper-based – including a workshop for trainers of translators. Note that NPMs from all CBA countries will need to be familiar with the computer-based translation/adaptation procedures. This includes those NPMs in CBA countries that test in English or French, as any adaptations to materials will be made using the required translation/adaptation process.

In addition, comprehensive one-on-one country consultations will take place throughout the meeting on topics such as school and student sampling, translation/verification, and adaptation of questionnaires. We encourage you to consider sending the person or persons responsible for these activities to attend these training workshops.

CHAPTER 5 – FIELD TRIAL PREPARATION PHASE

5.1. Overview of Tasks

This section describes additional tasks associated with preparations for the Field Trial, including further work on sampling plans, national versions of your instruments, and working with participating schools. Careful preparation will ensure a successful Field Trial data collection.

During this phase, you will need to complete the following:

- Further specify your Field Trial sampling plan

- Finalise your Field Trial sampling plan

- Assemble test and questionnaire materials

- Work with schools

- Recruit and train Test Administrators

- Plan for National Quality Monitors to visit schools to monitor testing sessions

- Plan staffing and resources for coding and data entry operations

- Organise for staff to attend the Field Trial International Training

- Install and test software, data codebooks, and coding documents

The timeline for most tasks is tailored to your country based on the data collection dates. The "Tasks" tab on the PISA Portal lists these tasks and provides a description and due date for your country. The relevant documents will be released according to the timeline.

Exhibit D.2 in Appendix D shows a tentative schedule of tasks associated with the Field Trial Preparation Phase. Procedures associated with these activities are briefly described below, and more detailed documentation will be released closer to the actual task dates.

5.2. Key Tasks during the Field Trial Preparation Phase

5.2.1. Further Specify your Field Trial Sampling Plan

After agreeing on your Field Trial test dates, population definitions, testing languages, sampling options, and various other issues, you will need to begin preparing the specifics of your Field

Trial sampling plan. Guidelines on how to complete your plan are given in further detail in the Field Trial Sampling Guidelines. You will need to submit Sampling Task 3 (ST3, ST3a) in September 2016. Following review and discussion with Core C Sampling, your list of sampled schools – Sampling Task 4 (ST4) – should be submitted in November 2016 and will be finalised around the end of November.

The PISA Standards note that "for the Field Trial, a sampling plan needs to be agreed upon." The PISA Standard regarding Field Trial sample sizes is shown below in Exhibit 5.1. If you have more than one language of instruction for reading in your country, you will need to discuss this situation with Core C Sampling, particularly if you plan to exclude very small linguistic minorities from the target population for the Main Survey. Much of this discussion should have already occurred during the cycle-wide ST0 work in late 2015. However, if any problems of this kind exist that are not yet resolved, they should be discussed with Core C Sampling immediately.

Other language issues such as the prevalence of bilingual, multilingual, or immersion schools should also be discussed at this time.

According to PISA Standard 3.1, a Field Trial must occur for any languages involving more than 5% of the target population (either in the country itself or in another PISA country from which field-trialled and verified test and questionnaire materials would be borrowed and adapted for the Main Survey). Countries that are able to borrow such versions from another PISA country under some circumstances may not need to field trial these minority versions themselves. This must be agreed upon with Core C Sampling and Core A Translation Referee. If, for example, the minority language is sizeable and the international contractors believe not testing operational procedures in this language in the Field Trial would pose a risk for the Main Survey, then it will be necessary to undertake a Field Trial in this language.

Exhibit 5.1.   Field Trial Participation – PISA Standards

Standard 3.1   PISA participants participating in the PISA 2018 Main Survey will have successfully implemented the Field Trial. Unless otherwise agreed upon:

- A Field Trial should occur in an assessment language if that language group represents more than 5% of the target population.
- For the largest language group among the target population, the Field Trial student sample should be a minimum of 200 students per item.
- For all other assessment languages that apply to at least 5% of the target population, the Field Trial student sample should be a minimum of 100 students per item.
- For additional adjudicated entities, where the assessment language applies to at least 5% of the target population in the entity, the Field Trial student sample should be a minimum of 100 students per item.

Note 3.1 The PISA Technical Standards for the Main Survey generally apply to the Field Trial, except for the Target Population standard, the Sampling standard, and the Quality Monitoring standard. For the Field Trial, a sampling plan needs to be agreed upon.

Note 3.2 The sample size for the Field Trial will be a function of the test design and will be set to achieve the standard of 200 student responses per item.

Note 3.4 Consideration will be given to reducing the required number of students per item in the Field Trial where there are fewer than 200 students in total expected to be assessed in that language in the Main Survey.

5.2.2. Finalise Your Field Trial Sampling Plan

Once your plan has been approved (by the end of November 2016), Core C Sampling will send you a form called Sampling Task 5 (ST5) regarding your list of sampled schools that needs to be checked. Once approved by you, Core C Sampling will import this file, along with two other important files required for within-school sampling, into the KeyQuest (KQ)[5] software, enabling you to perform your within-school sampling.

At some point between ST4 and ST5, Core C Sampling will ask when you would like to receive your Main Survey school sample. Your response to this question will determine your schedule for the submission of Main Survey sampling tasks.

5.2.3. Assemble Test and Questionnaire Materials

The PISA 2018 Field Trial instruments – test items and questionnaires – for both computer- and paper-based countries will be available to National Centres by the end of February 2016, following PISA Governing Board (PGB) approval. At that time, the contractors will focus on finalising the translation materials.

Release of Computer-Based Master Instruments (Computer-Based Countries Only)

Computer-Based Assessment (CBA) Instruments

The final CBA materials will be released for translation by early April 2016. For computer-based countries, the electronic source version will be available in both English and French source versions. These will be provided for translation in XLIFF format.

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[5] KeyQuest (KQ) is a sampling software provided by Core C Sampling.

Computer-Based Questionnaires

The final computer-based questionnaire material will be released for translation by the end of March - early April 2016 following the negotiation phase for national adaptations and/or extensions. That is, prior to the translation process, countries will need to negotiate national adaptations and/or extensions with Core A Questionnaire Content at this point. National extensions refer to additional questions that countries insert into the questionnaires to meet national policy interests. See Notes 1 and 2 below.

NOTE 1: All adaptations and national extensions (i.e., additional national questions) must be negotiated at this time and implemented during the Field Trial. No new questions will be accepted for the Main Survey if they were not administered to the Field Trial.

NOTE 2: National extensions impact the development process and add work to everyone involved including national centres, all contractors as well as respondents (students, teachers, administrators and/or parents). They also add risks to the project because technical expertise is needed for modifying the computer-based files and data software as errors are easily introduced, sometimes resulting in software crashes or data loss. But most importantly, these extensions may impact data quality when the instruments become longer and result in fatigue and missing data (or impact response rates of instruments administered afterwards). The proposals for these additional questions or extensions MUST be negotiated with Core A Questionnaire Content at this time Core A Questionnaire Content will rely on information from a variety of sources to approve national requests. There is a limit of 5 additional national questions per questionnaire.

For computer-based countries, the electronic source version will be available in English only, with a French source version available for reference as a separate paper file. The international source version of the electronic questionnaires will be provided in the Questionnaire Authoring Tool (QAT).

For countries that participated in 2015, trend questionnaire items from PISA 2015 already in their national languages will be provided in the QAT. Countries will need to enter their national translations of new questionnaire items into the QAT after they have been agreed upon by Core A Questionnaire Content. New countries will need to enter their national translations of all questionnaire items into the QAT after they have been agreed upon by Core A Questionnaire Content.

A workshop on how to work with the QAT and more information about the workflow will be provided at the March 2016 NPM meeting.

Further details about the preparation of materials will be provided by the different international contractors closer to the time when tasks need to be completed.

Release of Paper-Based Master Instruments (Paper-Based Countries Only)

Paper-Based Assessment (PBA) Instruments

The final PBA materials will be released for translation by early April 2016 in both English and French source versions. New countries will receive Word versions of the two source versions and will be required to follow a double-translation-and-reconciliation procedure (see section 4.2.7 for more information). For countries that participated in previous cycles, the international contractors will retrieve translations and centrally manage this process, noting that no changes to trend items are allowed.

Once assessment materials are translated and verified, Core A Cognitive will centrally assemble test booklets following all international standards and guidelines regarding layout and format to ensure cross-national comparability (see Exhibit 5.2 below). Countries will be asked to check and verify.

Exhibit 5.2.   Layout and Pagination of Assessment Materials – PISA Standards

Standard 13.1   All paper-based student assessment material will be centrally assembled by the international contractors and must be printed using the final print-ready file and agreed-upon paper and print quality.

Standard 13.3   The layout and pagination of all test material is the same as in the source versions, unless otherwise agreed upon.

Paper-Based Questionnaires

The final PBA questionnaire material will be released for translation by early April 2016. For paper-based countries, the source versions in PDF format show how the final instruments should be formatted. To help ensure cross-national comparability, the layout and format of all versions of instruments should be equivalent (see Exhibit 5.3 below).

Exhibit 5.3.   Layout and Pagination of Questionnaires – PISA Standards

Standard 13.4   The layout and formatting of the paper-based questionnaire material is equivalent to the source versions, with the exception of changes made necessary by national adaptations.

The translation template for paper questionnaires will be available in both English and French. Prior to the translation process, countries will need to negotiate national adaptations and/or extensions with Core A Questionnaire Content at this point. National extensions refer to additional questions that countries insert into the questionnaires to meet national policy interests. See Notes 3 and 4 below.

NOTE 3: All adaptations and national extensions (i.e., additional national questions) must be negotiated at this time and implemented during the Field Trial. No new questions will be accepted for the Main Survey if they were not administered to the Field Trial.

NOTE 4: National extensions impact the development process and add work to everyone involved including national centres, all contractors as well as respondents (students, teachers, administrators and/or parents). They also add risks to the project when these are not implemented or documented correctly. But most importantly, these extensions may impact data quality when the instruments become longer and result in fatigue and missing data (or impact response rates of instruments administered afterwards). The proposals for these additional questions or extensions MUST be negotiated with Core A Questionnaire Content at this time Core A Questionnaire Content will rely on information from a variety of sources to approve national requests. There is a limit of 5 additional national questions per questionnaire.

Further details about the preparation of materials will be provided by the different international contractors closer to the time when tasks need to be completed.

Combining International and National Options during Administration

It can be useful to recall the distinction between the following questionnaire components:

- **Core:** These are the components that all countries administer, namely the Student and School Questionnaires.

- **International options:** These are optional components that countries may elect to administer in addition to the core components. Participation in these options is negotiated with the OECD Secretariat.

- **National options:** These components are country-specific and administered for reasons of national policy or research interest. These may be national extensions within the existing questionnaire or additional, separate instruments. These are negotiated with the international contractors as described in section 4.2.7.

As noted in the previous chapter, in order to maintain consistency in how students (as well as school staff and respondents to any additional optional components) respond to the questionnaires, it is important to have respondents answer the core component first, then the international optional component(s) (if applicable), and, finally, any additional national optional component(s) (if applicable).

Organise Plans for Printing Materials and Verify Print Quality

The security of the PISA assessment material is essential for maintaining the validity of the study. Also, experience in previous surveys of PISA has shown that variations in the print quality (e.g., print resolution, paper thickness, etc.) can have an impact on students' test-taking

behaviour. Practical details should also be taken into account. Therefore, guidelines about printing will be prepared for countries conducting the paper-based assessment (PBA).

The three main considerations while planning for the printing of PISA materials are:

- Assessment materials (both test booklets and coding materials) are secure at all times,

- Print and paper qualities are of a high standard, and

- Booklet and questionnaire covers allow students or schools to be clearly identified.

The main print quality requirements are that participating students have no difficulty in reading the text and interpreting the graphics and that the layout and pagination of the material is equivalent across countries.

The key document, "Integrated Design," should be used in conjunction with your ST4 (number of students and schools to be sampled) to assist in estimating printing costs.

In addition, the PGB has specified that while the covers of instruments may be adapted to the national context, specific information should appear on all international versions. The following details should appear on the cover of each instrument:

- The study: OECD Programme for International Student Assessment <20xx>

- Country

- Field Trial

- Assessment instrument: Test booklet <xx> or Questionnaire <yy>

- Date of assessment

- Language of testing

- Participant Identification Information: Region, Stratum, School, and Student ID, <school and student name> (school and student name is optional if confidentiality is an issue)

- In the case of test booklets, coder identification as specified in the key documents

The PISA Standard related to the cover page of PISA paper instruments is shown below in Exhibit 5.4.

Exhibit 5.4.   Cover Page of Instruments – PISA Standards

> **Standard 13.2**   The cover page of all PISA test paper-based materials used for students and schools must contain all information as specified by the PISA Governing Board.

Printing PISA Materials

Paper-based tests and/or questionnaires must be printed in separate booklets to avoid the possibility of students' returning to the test material during the questionnaire session. Having the tests and questionnaires as separate booklets also assists the data entry process, as the questionnaire data can be entered while the test material is being coded.

The assembly of the PBA booklets will be performed centrally by Core A Cognitive, using national materials from previous cycles. Countries will be responsible for checking and identifying layout issues at the cluster level. Once approved, Core A Cognitive will rotate clusters of items following the pre-specified design and provide countries with print-ready booklets. Core A Cognitive also will work with countries in adapting cover pages and will provide printing guidelines.

It is recommended that prior to commencing the print job that you request a sample of each printed instrument from your printer. This will minimise any last-minute problems such as differences between your print settings and those of the printer. It will also allow you to confirm that the paper quality and print resolution are of the desired standard.

The assembly of assessment booklets will be centrally managed by the Core A Cognitive team. National Centres will be required to check their national versions thoroughly and promptly to determine if there are any layout or formatting anomalies and, if applicable, allow time for the international contractors to correct these if they exist.

Organise Plans for Testing and Reproducing USB Drive for the Student Delivery System

The computer-based assessment will typically be delivered using a USB drive, although they can also be run from the local hard drives on the school computers. The software runs much faster from the hard drive than the USB drives due to the higher transfer rates. Experience from PISA 2015, when USBs were the most common approach, shows that the overall quality of the USB can have a large impact on the performance of the system and, thus, the students' test-taking behaviour. Also, PISA 2015 has shown that a large proportion of the errors identified in data collection were caused by poor quality of the USBs or by errors when reproducing them. So it is important for National Centres to research and test a variety of USBs. When choosing which USB to purchase, you are strongly advised to purchase a few sample units, install the PISA Student Delivery System (SDS; master or national version depending on the timeline), and fully test them in computers with similar technical specifications to the ones that will be available in schools. Only after this testing is complete, countries should go forward with purchasing all the necessary USBs, which in most cases will be in the thousands. More information about selecting and testing USBs is provided in the Student Delivery System Manual.

If you have a company copying the SDS onto the USBs, it is recommended that you request a sample of the final USBs from the company. This will minimise any last-minute problems such as differences between the USB that you tested and the USBs that the company is returning to you with the SDS.

5.2.4. Work with Schools

Obtain Any Necessary Permission from Head Offices to Approach Schools

In many educational systems, there is an established hierarchy of authority that should be respected. Contacts should be made accordingly, in a defined order. Letters, informational materials, telephone calls, and personal visits are all useful ways of contacting the appropriate authorities. Some of these approaches may be more effective than others at different levels of authority. It is important to develop a strategy that defines how contacts will be made and what information will be provided at each of the different levels.

In some systems, it is not enough to notify the appropriate authorities; permission also must be obtained. This could include permission from one governmental level in order to contact another or permission from a governing board, private organisation, or religious authority to contact individual schools. Obtaining permission can be time-consuming. It is important to begin the process of securing co-operation early enough so that all necessary permissions are obtained in time.

If your country has a difficulty with low school response rates, endorsement letters and support from these agencies will be helpful if not critical to your success. Getting these endorsements as soon as possible should be a priority.

Develop a Strategy and Informational Materials for Schools

Experience has shown that conveying the rationale and purpose of PISA is important in engaging the co-operation and interest of school staff, which in turn can influence survey administration. Therefore, providing a clear overview of PISA adapted to your national context (e.g., as described at the beginning section of the School Co-ordinator's Manual) is important.

Informational and promotional materials should address the particular policy concerns of the educational system within your country and indicate where the PISA assessment fits in. International materials (e.g., the PISA brochure, which is available through the OECD PISA website at www.oecd.org/pisa/aboutpisa) provide useful information for developing a strategy for addressing the special requirements and concerns of your particular system.

It may be useful to develop a strategy through discussion with your PGB member and committees and other stakeholders in education. It is worth considering the development of different kinds of promotional and informational materials for different target audiences (e.g., school staff, students, parents, teachers unions, curriculum and assessment groups, and the media). Depending on the resources available to you, it is also worth considering different methods of delivering this information (e.g., a national website, brochures posted to schools, media reports, and articles published in the journals or magazines of education groups).

Invite Selected Schools to Participate and Identify a School Co-ordinator in Participating Schools

Procedures for securing school co-operation vary from country to country. In some countries, participation is not a problem; all selected schools are expected to participate and do so. In other countries, it is very difficult to get schools to participate. Reasons for these difficulties vary from concerns about too much testing and loss of instructional time to the burden on students, teachers, and school staff. The following suggestions may help to ensure school co-operation.

In other studies and in previous PISA surveys, participating countries have tried a variety of incentives, including financial incentives or honoraria for school staff; instructional materials; feedback reports; certificates of appreciation; and posters and banners. Incentives might be provided to the school, the students, or both. NPMs should decide whether incentives can or should be used in their particular contexts.

Sharing information about approaches that work is an important part of participating in PISA. NPM Meetings provide both formal and informal opportunities for NPMs to share information. Additionally, Core A Survey Operations will conduct webinars with NPMs on improving school and student response rates before the beginning of both the Field Trial and the Main Survey. When you have materials that you would like to share with other National Centres, please send them to Core A Survey Operations who will make them available to all countries.

An essential part of securing the co-operation of the selected school is identifying someone within the school who will act as the School Co-ordinator. The School Co-ordinator acts as the liaison between the school and the National Centre. This person is very important to the success of the project.

Once the national version of the School Co-ordinator's Manual has been agreed upon with Core A Survey Operations, this manual should be sent to the School Co-ordinator at each selected school.

Make sure that school staff members have adequate time to review this manual and to complete the preparatory tasks required for the assessment. Depending on national circumstance and requirements, schools are typically first contacted and invited to participate **at least 8 weeks prior to the first test date.**

Ascertain Testing Date for Each School

It will be important to work with the School Co-ordinator to identify a suitable date for testing. Factors such as the length of time required to complete the PISA assessment will be described in detail in the School Co-ordinator's Manual. There are additional constraints to consider. If a person external to the school is to undertake the test administration, this person's schedule will need to be considered. The locations of schools, weather, holidays, political situations (such as strikes), and length of the testing period should also be taken into account. You will need to develop a strategy to communicate with the School Co-ordinator and/or Test Administrator, especially for any changes or updates to testing dates.

Liaise With Schools Regarding Any Problems That May Arise

Ensure that the School Co-ordinator is readily able to contact the National Centre to discuss any problems that may arise. Anticipate possible difficulties that may arise or questions that may be asked in relation to elements, such as the delivery of materials to schools, clashes with the test date and other school activities, the availability of rooms and equipment, confidentiality issues, and school feedback.

You will need to allocate resources to deal with queries as they arise. It may be necessary to identify additional National Centre staff to assist with this process. Establishing a helpdesk may be useful (especially for the Main Survey). It may be useful to compile a list of frequently asked questions and answers to use during telephone or email communication with the schools.

Obtain Student Lists from Schools

If not using a centralised database to procure your student lists, schools need to provide you with a list of enrolled students whose dates of birth fit the population definition approved by Core C Sampling and, if you are participating in a sampling optional component, additional students for that option. If a central database with up-to-date and sufficiently detailed student-level information is available, you can use this instead of a list obtained from individual schools to reduce the workload of school staff.

If possible, we recommend that you request student lists electronically. However, in some cases, when electronic lists are too difficult to obtain, you may need to work with paper-based lists. In either case, it is important to ensure the confidentiality of these lists and also to check these lists very carefully to ensure that all PISA-eligible students of all school grades, genders, and programs have been listed, including students who may later be excluded if sampled. The School Co-ordinator's Manual will contain an example of a student listing form as well as instructions to send to schools. You will need to adapt these as part of your preparation of the school-level materials. The Field Trial Within-School Sampling Manual will provide information about the process of student sampling and describe how to import these lists into KQ. Please review these sections carefully before you finalise instructions and forms for schools.

You may prefer to obtain the Student List via a letter to schools, prior to sending the School Co-ordinator's Manual, containing the other procedures to be implemented at the school level. This procedure is acceptable as long as you send an English translation of this letter to Core A Survey Operations for discussion and agreement. This process should be completed prior to the letter being sent to schools.

Because it is very important that the student sample represent current enrolments, the list should not be prepared too far in advance. The request to schools (via letter or in the School Co-ordinator's Manual) should not be distributed before the release of the source version of school-level materials.

The instructions for preparing the lists should be sent to the School Co-ordinator **about 8 weeks before commencement of testing.** The individuals who prepare the lists also should be instructed to return the lists to the NPM **at least 4 weeks before testing begins.** This will

permit the NPM to use KQ to select the student samples and send the Student Tracking Form, which lists selected students, back to schools at least 2 weeks prior to testing. This schedule may be affected by school vacations and holidays. NPMs should be aware of the impact of these events and modify the schedule accordingly.

Select Student Sample Using KQ Software

After all sampling tasks in your Field Trial sampling plan are approved; Core C Sampling will ask you to review a file on the PISA Portal with data relating to your sampled schools. After this file is reviewed and agreed upon by you, it will then need to be imported into KQ by Core C Sampling prior to student sampling. After this has been done, you should consult the Field Trial Within-School Sampling Manual for details on KQ operations and instructions for conducting student sampling.

Once NPMs have received the lists of eligible students from each school, the student sample should be selected using KQ, the PISA software supplied by Core C Sampling.

Unless otherwise agreed upon, the student sample must be selected using KQ (see Standard 1.14 below). The procedure for this is explained fully in the Field Trial Within-School Sampling Manual. NPMs must receive approval from Core C Sampling if they wish to select students using other software (see Exhibit 5.5 below).

Exhibit 5.5.   Use of KeyQuest – PISA Standards

> **Standard 1.13**   Unless otherwise agreed upon, the international contractors will draw the school sample for the Main Survey
>
> **Standard 1.14**   Unless otherwise agreed upon, the National Centre will use KeyQuest to draw the student sample, using the list of eligible students provided for each school.
>
> **Note 1.7**   Any exceptional costs associated with verifying a school sample taken by the National Centre, or a student sample selected other than by using KeyQuest will be borne by the National Centre.

KeyQuest produces a Student Tracking Form and a set of Session Attendance Forms for each school. These are the central administration documents for the study. The Student Tracking Form is the complete list of sampled students and is used to identify in advance those students with special educational needs, and among those, who should not attend the assessment. Before the day of assessment, it is checked for errors by the School Co-ordinator and used to identify ineligible students. Once test and questionnaire forms have been assigned to students, the Session Attendance Forms become the link between the students and the assessment materials that they receive. The Session Attendance Forms are used during and after the assessment by the Test Administrator to record session attendance for each sampled student (present, partially present, or not present).

The checked and updated Student Tracking Form and Session Attendance Forms are sent back to the National Centre.

Send Student Tracking Form to the School Co-ordinator and Test Administrator

The School Co-ordinator needs to know which students have been sampled so he or she can notify the students, teachers, and students' parents. The School Co-ordinator will also need to update the information on the Student Tracking Form and identify students who cannot be tested. Therefore, the Student Tracking Form should be sent to the School Co-ordinator no later than 2 weeks before the assessment session.

Before sending the Student Tracking Form to the School Co-ordinator, make sure you have a backup copy for your records. You should also send a copy of the Student Tracking Form to the Test Administrator, along with the assessment materials. This is in case the school's copy is misplaced on assessment day. The School Co-ordinator's and Test Administrator's Manuals assume that both individuals will have copies.

You will also need to send copies of the Session Attendance Forms and the Session Report Forms (used to gather information on session conditions) to the Test Administrator.

5.2.5. Recruit and Train Test Administrators

The PISA Standards shown in Exhibit 5.6 below apply to test administration.

Exhibit 5.6.   Test Administration – PISA Standards

> **Standard 8.1**   All test sessions follow international procedures as specified in the PISA operations manuals, particularly the procedures that relate to:
> - test session timing,
> - maintaining test conditions,
> - responding to students' questions,
> - student tracking, and
> - assigning assessment materials.
>
> **Standard 9.4**   In-person test administrator trainings should be conducted by the NPMs or designees, unless a suitable alternative is agreed upon.
>
> **Standard 8.2**   The relationship between Test Administrators and participating students must not compromise the credibility of the test session. In particular, the Test Administrator should not be the reading, mathematics, or science instructor of any student in the assessment sessions he or she will administer for PISA.
>
> **Note 8.1** Test Administrators should preferably not be school staff.

These Standards were established for a variety of reasons, including the following:

- To minimise burden on the participating schools,

- To establish the credibility of PISA as valid and unbiased, and

- To encourage uniformity in the administration of testing sessions.

It is preferable that the Test Administrators not be staff members of any schools in the PISA sample. However, it is recognised that this is not always possible in practice. It is therefore permissible for a staff member from one school to be the Test Administrator in another. It is also permissible, but not recommended, for Test Administrators to belong to the staff of the school(s) where they will administer PISA. When this is the case, a staff member from within a school may serve as a Test Administrator as long as this person is not a *reading, mathematics, or science* instructor of the sampled students.

PISA does not require that Test Administrators meet specific academic or professional requirements, but they should be familiar with schools and how they operate. They should also be familiar with standardised testing procedures, and they must be information and communication technology (ICT) literate. In some countries, Test Administrators will have to be fully qualified teachers or undergo a security and background evaluation before they can work in schools.

Before the beginning of PISA testing, you should train the Test Administrators. Core A Survey Operations recommends that the Test Administrator's Manual be provided to the Test Administrators in advance of training.

To help prepare you for the Test Administrator training, Core A Survey Operations will host webinars reviewing the key points that should be covered to ensure that all sessions within a country and across countries are carried out in a uniform manner. Topics to be included are as follows:

- Introduction to PISA and what the results are used for in both international and national contexts;

- Description of the role of Test Administrators, emphasising the importance of uniform testing conditions in an international context (you may wish to refer to the PISA Standards);

- Review of Test Administrator activities before, during, and after testing, as detailed in your national version of the Test Administrator's Manual;

- Review of the Student Tracking Form, Session Attendance Forms, Session Report Form, and procedures for their completion, including some practice examples;

- Review of procedures for the administration of optional instruments, such as the Une Heure (UH) form, if any;

- Review of procedures specific to additional optional sampled students, if any;

- Review of the test administration script(s), emphasising the importance of adherence to the wording of the script and to session timing;

- Review of the explanatory notes to be used as a reference during the administration of the student questionnaire;

- Review and discussion of issues that commonly arise – these will vary from country to country, but may include procedures for changes to test dates, managing students during the second hour of the session, admitting students who are late, recording students who leave the session temporarily, and managing disruptive students;

- Discussion about the security of materials at all times of survey administration and the necessity for the swift return of all assessment materials;

- Consideration of procedures relating to multiple and follow-up sessions and any implications for the management of assessment materials in schools or for the return of materials; and

- Review and discussion of any nationally specific issues, such as protocols for entering schools or communicating with school staff.

5.2.6. Plan for National Quality Monitors to Visit Schools to Monitor Testing Sessions

The best way to identify issues concerning field operations within schools is for National Centre staff to visit some schools and observe test administration first hand. Then, using the experience of these observations, the staff member should consult with Test Administrators and School Co-ordinators about the challenges they encountered and how these challenges could be overcome.

These observations of the testing sessions provide valuable information about aspects of your national implementation and test procedures, and your feedback will help ensure the quality of international procedures developed for the Main Survey.

To prepare for this activity, you will need to establish protocols for visiting schools and to consider suitable staff to visit schools to observe testing sessions. These individuals should attend your national Test Administrator training, if possible, to ensure their familiarity with PISA procedures.

National Quality Monitors are recommended, but not required, for the Field Trial.

5.2.7. Plan Staffing and Resources for Coding and Data Entry Operations

The coding and data entry operations that will follow the Field Trial testing period are discussed further in the next chapter. These activities will require additional staffing and resources, so planning well for these activities before the Field Trial testing period begins is advisable, particularly if you anticipate difficulties in identifying coding and/or data entry staff.

The following are guidelines that explain resources required for these activities. New National Centres and/or National Centres that will have inexperienced staff conducting these activities

may require more resources. The Core A Contractor may conduct webinars to help National Centres prepare for this phase.

- **Coders of constructed-response items:** Coding operations vary in length depending on the mode of assessment, sample size, coding design, experience of the coders and other factors (i.e., participation in the optional assessment of Financial Literacy). On average, standard-size samples have required on average of at least three weeks of coders' time. Due to national variability in terms of sample size and languages, a set of coding designs will be presented during the Field Trial and Main Survey International Training. Note that the coding design will require two bilingual coders per domain, as in the 2015 Main Survey.

- **Coders of occupational response data:** In previous surveys, occupational coding has required on average approximately 75 hours at the Field Trial and 300 hours for the Main Survey.

- **Data entry:** Data entry operations vary in length depending on the mode of assessment, sample size, experience of staff, and other factors. Countries that are participating in PISA 2018 as a paper-based country should plan on two to three staff working full time for 4 weeks following the Field Trial, and four to six staff working full time for 6 weeks following the Main Survey for the standard-size PISA sample of about 5300 students. If more students are sampled, they will need to make provision for more staff because delays in data submission are problematic. Countries that are conducting CBA will require data entry for the Session Report Form data. Additional time should be factored in to code the parent questionnaire responses, if applicable.

- **Data management:** Each National Centre shall have a secure computing facility for the operation of the Data Management Expert software for all countries and the Open-Ended Coding System (OECS) for computer-based countries and the Open-Ended Reporting System (OERS) for the paper-based countries. All computers that operate this software must have Microsoft Windows operating system (version 7 or later) and have adequate storage (about 20 GB) for the management of all files related to data collection and coding. For the OERS system, computers should also be equipped with Microsoft .NET version 4.0 software and Microsoft excel (recommended version 97 or later). In addition, stable internet connection will be needed as the PISA 2018 OECS will be an online system.

5.2.8. Organise for Staff to Attend the Field Trial International Training

The Field Trial International Training will cover the coding procedures and item-by-item coding instructions for the open-response assessment materials in reading as well as data management training and will take place in January 2017. Participants will be trained in the use of the international coding guides for the coding of test items and work with the international coding guides for reading items requiring human coding, including both trend and new items. Additionally, participants will be trained to use the data management software using generic codebook templates as a practice exercise for the Field Trial data management procedures. Coding training for the open-ended items for mathematics, science and financial literacy will take place through alternative means (recorded and/or live webinars) during February 2017.

PISA Standards 14.2 and 14.3, shown below in Exhibit 5.7, relates to attendance at this international training.

Exhibit 5.7.   International Coder Training – PISA Standards

Standard 14.2   Representatives from each National Centre attend the international PISA coder training session for both the Field Trial and the Main Survey.

Standard 14.3   Both the single and multiple coding procedures must be implemented as specified in the PISA operations manuals (see Note 14.1). These procedures are implemented in all software and data software that countries will be required to use.

Note 14.1   Preferred procedures for recruiting and training coders are outlined in PISA operations manuals.

Given the multiple training sessions that will be conducted in parallel, you will need to identify the most appropriate staff members to send to this meeting. A detailed breakdown of the meeting schedule will be provided well in advance of the meeting to enable you to consider who should attend, and for which sessions.

Updated source versions of the Field Trial coding guides will be released after the Field Trial International Training. National versions of coding guides will then need to be finalised accordingly and submitted to Core D Translation Verification for verification.

5.2.9. Install and Test Software, Data Codebooks, and Coding Documents

Soon after the Field Trial data management training, each country will receive a copy of the DME software installation package and a national codebook template that is tailored for that country. There will be only one template per country, established according to the QAT for the majority language. Unless approved by Core A Data Management, all data management operations shall be conducted through a single instance of the DME database and the OECS database (CBA countries only).

The following steps should be taken well in advance of the start of the survey administration:

1. Install the software and establish a project workspace on one or more computing systems

2. Create a data codebook from the template

3. Verify and/or add all national adaptations and additions in the codebook

4. Test the accuracy of the import and data entry functions with test data

Additionally, each CBA country should install the OECS coding software and use test data to become familiar with the operations of the system.

CHAPTER 6 – FIELD TRIAL PHASE

6.1. Overview of Tasks

This section describes tasks directly associated with the Field Trial data collection and Field Trial data processing. During this phase, you will complete the following:

- Attend the second National Project Manager (NPM) Meeting in November 2016

- Dispatch test and school-level materials

- Continue liaising with schools

- Organise follow-up sessions

- Monitor Data Collection of Online Questionnaires

- Monitor Collection of Parent Questionnaires, if applicable

- Return materials to National Centre

- Understand the process of coding cognitive items

- Understand the process of coding occupations

- Attend the FT International Training in January 2017

- Understand data entry operations

- Submit sampling checks to Core C Sampling

- Submit database to Core A Data Management

- Be available during post-submission data processing

- Archive your Field Trial materials

- Complete and submit the Field Trial Review Questionnaire

- Monitor data collection of online questionnaires

- Begin Main Survey sampling preparation

During this phase, you should begin to think about preparing and submitting sampling documentation and data files to Core C Sampling to facilitate the drawing of the school sample for the Main Survey.

Exhibit D.3 in Appendix D shows a tentative schedule of tasks associated with the Field Trial Phase. Procedures associated with these activities are briefly described below and more detailed documentation will be released closer to the actual task dates.

6.2.   Key Tasks during the Field Trial Phase

6.2.1. Attend the Second NPM Meeting in November 2016

Attendance at the NPM Meeting in November 2016 is important because it will include an overview of the CBA systems and their testing, as well as a KeyQuest (KQ) software training for sampling aspects. Using the meeting agenda as your reference, you should carefully consider which of your staff should attend this meeting.

6.2.2. Dispatch Test and School-level Materials

There is no single best way to prepare materials for shipment and distribution. In this section, we suggest several different methods, recognising that each has its advantages and disadvantages with regard to cost, burden, and efficiency. You should choose the way that will work best in your country, taking into account how you intend to implement PISA within your particular educational systems. A key consideration here is the maintenance of the security of materials at each step and process. These materials include, but are not limited to: lists of sampled schools, lists of sampled students, test items, and completed questionnaires of any sort. Core A Survey Operations can review your plans with you if requested.

NPMs should consider the following:

- Does the National Centre have clear security guidelines in place to ensure the confidentiality and security of confidential materials throughout all phases of the PISA cycle? This should include organisations outside of the National Centre, such as printers and shippers.

- How do you organise coding, data processing, and data management so that security and confidentiality is maintained throughout those phases?

- Will Test Administrators be National Centre staff (preferred) or staff from the selected schools? How will you ensure that National Centre and school staff understand and follow the security and confidentiality requirements?

- Does packing and labelling preserve the confidentiality of secure materials? Do you label/identify students (teachers or schools) on materials clearly, so they are distributed to the right person? Does the method of labelling/identifying materials preserve the confidentiality of schools, staff, parents, or students participating in PISA?

We strongly encourage you to use electronic methods (e.g., mail merge in Microsoft Word) to generate student information for labelling materials (name, student ID, booklet/questionnaire ID). Having printed labels minimises errors with the assignment of booklets or USB drives to

students. It also increases accuracy and efficiency of data entry and data processing. This procedure is described in the Test Administrator's Manual.

To protect test security, it is strongly recommended that all confidential materials be sent to the Test Administrators rather than to the schools. If these materials are sent to the participating schools or returned by the participating schools, the NPM must ensure that test security and confidentiality of the material is not compromised.

For PBA countries, Core A Cognitive will produce print-ready electronic versions of booklets that National Centres will print, package, and ship with all other assessment materials. The test booklets and Student Questionnaires for a school could be bound in a secure bundle with a bundle slip on top – sealed in either plastic or some other form of packaging that allows the Test Administrators easily to check if the package contains the correct number of booklets or questionnaires without having to open it. It is highly recommend that the National Centre bundle booklets and questionnaires in the exact order they appear on the Session Attendance Form. This will reduce errors in assigning them to students.

For CBA countries, the CBA materials will be contained on USB drives used to deliver the test and collect the data. If an Internet connection is available, results data can be uploaded to central servers, bypassing the need to return data to the National Centres on the USB drives until after the end of the assessment period. It is recommended that the USB drives be sealed in clear plastic bags.

Three scenarios described below are examples of acceptable approaches to packaging and shipping the assessment materials. Any questions regarding packaging and shipping materials should be directed to Core A Survey Operations.

- Country A plans to ship assessment materials to schools and to use school staff who are not teachers of the students in the assessment to conduct the testing sessions. The National Centre will label each instrument before packaging it for shipment to schools. The Student Tracking Form and Session Attendance Forms should be included.

- Country B plans to use Test Administrators employed by the National Centre and will ship materials directly to these Test Administrators. The Test Administrators will open the packages assigned to a school prior to the session and will label the booklets, questionnaires, or USB drives with the students' names and ID numbers according to the assignment recorded on the Session Attendance Forms.

- Country C, a PBA country, plans to ship materials directly to the schools, but will use Test Administrators who are employed by the National Centre and will package the test booklets and questionnaires in separately bound bundles with a security seal. The booklets and questionnaires in each bundle will be ordered as per the Session Attendance Forms.

As a reminder: If a school's package of assessment materials is being sent directly to the school, you will need to inform the School Co-ordinator of this arrangement and emphasise that the package must be kept secure at all times and that it must not be opened until the Test Administrator arrives at the school on the day of the assessment. The School Co-ordinator should email this confirmation to you. It is preferred that the materials be sent by courier with a

signature of receipt required if this is feasible in your country. If the materials are shipped to the School Associate at the school, it is important to emphasise that the materials must be kept in a secure place after they have been checked.

Regardless of the approach to be used for packaging and shipping, for each session the following materials should be sent either to the Test Administrator or to the school:

- Appropriately labelled test booklets and the Student Questionnaires for each student listed on the Student Tracking Form for a paper-based assessment (PBA) country. Labelling can be done by the Test Administrator;

- Appropriately labelled USB drives for each CBA student listed on the Student Tracking Form (CBA country only). Labelling can be done by the Test Administrator;

- Student Tracking Form;

- Two copies of the Student Attendance Forms;

- Two copies of the Session Report Form;

- Return shipment materials (e.g., packaging, a pre-paid courier dispatch label, and any necessary instructions as required in local circumstances);

- Additional materials (e.g., instructions for confirming receipt of materials, writing materials, calculators, as required by local circumstances);

- Extra School and Student Questionnaires (PBA countries only); and

- Extra booklets (PBA countries) or USB drives (CBA countries).

In addition, NPMs will be responsible for distributing usernames and passwords for the online school and teacher questionnaires to schools. NPMs will receive this information from contractors 15 days before the Field Trial scheduled starting date.

6.2.3. Continue Liaising with Schools

Immediately prior to a school's test date, and also on the day of testing itself, you should be prepared for an increased number of last-minute queries from schools and Test Administrators. Many of these are likely to relate to final arrangements for the test, such as the following:

- Identification and exclusion of students with special educational needs;

- Dealing with student/parent refusals;

- Whether sampled students can be replaced (answer: student replacements must never be used!);

- The extent to which the School Co-ordinator or other staff members should attend assessment sessions;

- The size or other features (e.g., temperature, noise, privacy, etc.) of the testing room;

- Session break times versus the school's timetable;

- Procedures associated with finishing the assessment and getting students back to their classes;

- Implementation of session codes and student participation codes by Test Administrators; and

- Whether a follow-up session is required.

In planning support for this work, it can be useful to review the test dates of participating schools and identify periods within the test schedules when a higher number of queries is likely. You are encouraged to designate at least two National Centre staff to liaise with schools in case of staff absence and multiple, urgent queries. Establishing a helpdesk is useful in order to answer these queries. Some schools may even decide not to participate if they do not receive prompt and professional responses to their queries.

Please also review your strategy for informing school staff and Test Administrators of any changes to test dates.

6.2.4. Organise Follow-Up Sessions

In order to ensure that you have an adequate number of students for reliable data, you should plan for follow-up sessions in schools. You should use the method developed by the international contractors when determining if follow-up sessions are needed. PISA Standards regarding the number of assessed students and response rates are critical to ensure the quality of the Main Survey data, and trialling these procedures in the Field Trial is important.

The source versions of the Test Administrator's Manual and School Co-ordinator's Manual assume that follow-up sessions may need to be implemented. The Test Administrator's Manual provides uniform procedures for Test Administrators to help them decide whether a follow-up session is needed.

Test Administrators should notify you as soon as it is known if a follow-up session will be required, as there are implications for the return shipment of materials (i.e., whether to ship materials back in one or two batches).

Countries also might want to consider following up on the School Questionnaire and any other questionnaires that have not been returned to achieve a high response rate. Core A Survey Operations can provide suggestions on following up and suggestions for improving response rates.

6.2.5. Monitor Data Collection of Online Questionnaires

To achieve a high response rate and good data quality for the online questionnaires for schools and teachers, it is crucial that countries use the provided online monitoring tool. It can be used to track the progress of the online questionnaires and to follow up with schools if necessary.

After the student data collection period is finalised, the online school and teacher questionnaires will remain open for 4 weeks. NPMs will continue to monitor the progress of users taking the questionnaires using the monitoring tool. In addition, NPMs will be able to upload data weekly to the Data Management Expert System (DME) to review the data for completeness. During this period, NPMs will receive reminders from contractors regarding the amount of time the online questionnaires will remain open and should contact schools as needed. Access to the online questionnaires will close 4 weeks after the student data collection period is completed and cannot be reopened. More information on how to monitor completion of the online questionnaires is provided at the School and Teacher Questionnaires Monitoring Manuals.

Please keep in mind that a high response rate is essential so that your data can be included in the analysis and reporting.

6.2.6. Return Materials to National Centre

To help ensure that the international survey timeline and deliverables are adhered to, data should be submitted to Core A Data Management within **8 weeks after the final test date** in your country. Given this timeline, your procedures for returning materials should be both precise and efficient. You are likely to need two or more staff working together to complete this task.

The manner in which materials should be packaged for return is detailed in the Test Administrator's Manual. It is recommended that Test Administrators ship material back to you within 24 hours after each assessment session or follow-up session is completed.

Please note that if any test booklet, completed Student Questionnaire, or USB drive is missing (including unused booklets or USB drives), it is essential that every effort be made to retrieve it immediately. As soon as possible, send the details of the missing booklet or USB drive to Core A Survey Operations at PISA-SurveyOperations@westat.com. A form to report missing secure and confidential materials is located in the Survey Operations Resource folder on the PISA Portal.

6.2.7. Understand the Process of Coding Cognitive items

One of the key outcomes of the PISA survey is data on students' performance. PISA is innovative in its attempt to have an authentic assessment of real-life literacy knowledge and skills. The tests' data include a large number of written responses that require manual human coding, and detailed training is required to complete the coding of these items. An overview of these will be provided in the document describing the coding procedures and also presented to countries during the Field Trial International Training in January 2017.

The PISA Standards shown below in Exhibit 6.1 relate to the coding of these test items.

Exhibit 6.1.   Item Coding – PISA Standards

Standard 14.1   The coding scheme described in the coding guides is implemented according to instructions from the international contractors' item developers.

Standard 14.3   Both the single and multiple coding procedures must be implemented as specified in the PISA operations manuals (see Note 14.1). These procedures are implemented in all software that countries will be required to use.

Standard 14.4   Coders are recruited and trained following agreed procedures.

Note 14.1   Preferred procedures for recruiting and training coders are outlined in PISA operations manuals.

Comparability within countries and across countries is an important design criterion in PISA. The reliability of coding is established by multiple coding a portion of the responses, as well as through careful monitoring of coding results. These steps are required as quality-assurance measures to determine whether coders are applying the coding rubrics consistently.

A within-country reliability study will be implemented during both the Field Trial and the Main Survey to check the consistency of coding. This study will require a set of responses to be multiple coded by various coders. Across-country reliability study also will be implemented to examine systematic scoring bias across countries. This study will require two bilingual coders (fluent in the testing language and English) per domain to multiple code common English responses provided by the Core A Cognitive team.

Precise specification of the coding design (number of coders and rotation of coders) will be available in a document describing the coding procedures prior to the Field Trial.

Ensure Appropriate Staff during Coding Cognitive Items

The PISA coding procedures document for the Field Trial and Main Survey will provide detailed information on coder requirements. You may also wish to nominate administrative staff to support the coding process. It may be the case, for example, that you will need support staff to set up and prepare coding materials at the same time as commencing coder training. Depending on the locations of coders, you may need support during coding to ensure a smooth flow and retrieval of materials.

The Field Trial International Training that will be held in January 2017 is a valuable opportunity for you and/or national coding experts to closely review and conduct training on the coding materials. It is imperative that the lead coders attend this training.

Understand the Item Coder Query Service

During the international item coding period, a coder query service will be available to support coders. It should be used when agreement at your National Centre regarding which code to

assign cannot be reached through discussion. Additional information will be provided closer to the coding period. Test developers at Core A Cognitive will make every effort to respond to each query within one working day, but this may not always be possible.

6.2.8. Understand the Process of Coding Occupations

The reliable coding of occupational data from the questionnaires is important because this information is used to form key indicators of student socioeconomic status. A brief overview of the activities, along with information about likely resource needs, is provided below. A full description of the activity will be provided in additional documentation that will be released for the coder training and operations meeting held before the Field Trial during the Second NPM Meeting.

The Field Trial is an opportunity to improve the quality of coding in preparation for the Main Survey through the identification of difficult-to-code responses and the development of strategies to code them, as well as ways in which instructions given to students might be improved to yield more easily coded responses.

Similar to the coding of test items, supervisors will need to be recruited and trained for the occupation coding team to provide advice on the coding of specific occupations and to help ensure the quality of the data.

If your National Centre does not have previous experience in the coding of occupational data, you are encouraged to secure support from an expert (e.g., from a national statistical organisation that specialises in labour statistics) to resolve more difficult queries, always keeping the confidentiality of questions and responses in mind.

For the collection and coding of occupational data, PISA uses a framework recommended by the International Labour Organisation (ILO). The framework describes the way occupational questions are formulated and how data are processed, and provides guidelines on the choice of classification (the International Standard Classification of Occupations [ISCO]).

For the PISA 2018 survey, the same ISCO coding scheme will be used as for the PISA 2015 survey: ISCO-08. For information in English, French, and Spanish on the ISCO-08 structure, definitions, and how the ISCO-08 classifications correspond to the ISCO-08 classification, see http://www.ilo.org/public/english/bureau/stat/isco/isco08/.

If your country has not previously participated in PISA, you should allocate time for a professional translator familiar with the area of occupations to adapt/translate ISCO-08 or an equivalent instrument. Alternatively, your country's bureau of statistics or equivalent organisation might be able to assist you with this task. You do not need to submit translated coding schemes for verification, but the national version of your ISCO-08 instrument must be equivalent to the international one in terms of the codes and content of the category descriptions.

Unlike the coding of the test items, there are many more occupational codes, and response categories can cover more than one occupation. The response categories do not include

detailed descriptions of the occupations within a category. The large number of occupational response categories and their flexible nature do not allow the development of an international coding guide as detailed as that developed for the test items. Instead, more generalised guidelines have been developed, and you will need to adapt them to suit your national context. To do so, you should use the occupation coding guidelines for ISCO-08.

If a national classification code is available, it may be preferable to use it, but the codes used must map back to the ISCO classification, and the auxiliary codes (e.g., house worker, student, missing, and invalid responses) must match the coding scheme used in PISA. **The submitted data must be in the form of ISCO-08 codes.**

You are encouraged to consider developing strategies to maximise the efficiency of occupation coding (for example, by producing a list for coders of the 50 or so most commonly used ISCO codes from the previous PISA survey). You are also encouraged to record student responses that are difficult to code and/or which should be coded using the same rule of thumb by all individuals who apply the coding.

Ensure Appropriate Staff during Coding Occupations

When recruiting occupational coders, people with some previous experience in occupation coding are preferable, but this is not always possible. A background in areas such as psychological measurement/assessment is also an advantage, because some familiarity with concepts like measurement reliability is likely to be beneficial. Individuals should be able to follow detailed instructions, concentrate for extended periods of time, and work steadily at a reasonable level of productivity. They should also be clerically accurate and careful and know how to raise questions when required.

During the training of your occupation coders at your National Centre, it is recommended that you provide coders with an overview of PISA and explain the following:

- The analytical uses of the occupation data;

- The importance of coding the data as reliably as possible;

- The content and structure of ISCO-08 (and national equivalent);

- Both the general and specific guidelines, and

- The procedures for coding commonly occurring "problem" occupations in national context (e.g., as learned from previous surveys, other national surveys, or an external consultant).

Coders should then review, code, and discuss a sample of up to 50 national example occupations.

You should also explain recording and resolution of queries, and any issues regarding the timeline for this work.

Details about this process were provided at the November 2016 NPM meeting and the Field Trial International Training in January 2017.

Understand the Occupation Coder Queries and Quality Assurance

If a coder is unable to determine which code a response should receive, or if the response does not fit into any given score category, he or she should consult the occupation coding supervisor. It can be more efficient to log queries in a central location (such as in a database on your National Centre network), set the questionnaires with queries aside, and deal with them in batches.

Details about data entry will be provided during the data management period. It is strongly recommended, particularly in the context of preparing for the Main Survey, that you double code and double enter data for 10 percent of questionnaire responses. It may not be possible, given time constraints, to improve the occupation coding of the Field Trial data, but the double-coded data should be reviewed in preparation for the Main Survey to refine and improve instructions for occupational coding. Additionally, the Data Management software provides a series of consistency checks on occupation coding for further verification and validation of entered codes.

6.2.9. Attend the Field Trial International Training in January 2017

Attendance at the Field Trial International Training is critical to your understanding of coding and data management. This meeting will cover the coding procedures for all cognitive items, as well as include training for Data Managers. Using the meeting agenda as your reference, you should carefully consider which of your staff should attend this meeting.

6.2.10.   Understand Data Entry Operations

Coding and data management will be among the topics discussed and practiced at the January 2017 International Training meeting. The staff of the National Centre responsible for these tasks should attend this part of the training meeting. It is recommended that you review the relevant sections of Data Management Manual in advance to allow you to prepare for the various phases of the project. Please note that the manner in which you adapt your instruments (particularly the questionnaires) may have important implications for the structure of your database and how data are entered into the DME. Information on data entry for PISA 2018 will be presented before the Field Trial.

In planning data entry operations for paper-based countries, it should be noted that in countries with standard-size samples, the most typical model for data entry for prior cycles was two to three staff working full time for 4 weeks following the Field Trial.

Although there will be minimal data entry resources required for computer-based countries, some staff resources will be required for the management of the electronic files that will be imported into the project database. It is recommended that the import of the electronic data start as soon as it is available, rather than waiting until the end of the data collection phase. In this

way, any issues with the data or the codebook can be addressed before they have a critical impact on the schedule at a later time.

You should build sufficient time into your data management timeline (a minimum of five working days) to be able to review and produce validity check reports and to resolve discrepancies as specified in the Data Management Manual.

6.2.11.   Submit Sampling Checks to Core C Sampling

You will need to enter the participation status of the schools and students selected for your Field Trial into KQ and perform some validity checks on these sampling data. Following the resolution of all issues arising from the validity checks, you will need to submit your sampling data and sampling validity reports to Core C Sampling via KQ **within 4 weeks of your last testing date**. Your Sampling Task 6 (ST6) Field Trial sampling data should be approved before you submit your database to Core A Data Management.

These processes will be explained in detail in the Field Trial Within-School Sampling Manual and in general in the Field Trial Sampling Guidelines.

6.2.12.   Submit Database to Core A Data Management

You will need to submit your data to Core A Data Management no later than **8 weeks after your last testing date**. This strict timeline is in place as delays to national data submission put the international timeline at risk. During this 8-week period, you will need to process data from all your instruments, code the open-response items and perform reliability checks, code occupations, and prepare your national database for submission following all the guidelines provided by Core A Data Management. If you cannot submit your data by this time, please inform Core A Data Management as soon as possible and we will work with you to negotiate a new data submission date (needed by Core A Data Management for planning data processing activities) and help resolve any data management problems you may be experiencing.

Relevant supporting documentation as specified in the Data Management Manual should accompany your database. This documentation is needed by Core A Data Management staff to process the data and apply more detailed checks. International contractors may not be able to approve your Field Trial database if information is missing or excluded from delivery.

Please note that, for additional adjudicated regions that are processed together, the data structures should be identical and in a single data set.

It is important to contact Core A Data Management a day or two before you are ready to submit the data so they can prepare resources for deliveries. Details of the manner in which data can be submitted will be provided in the Data Management Manual.

Exhibit 6.2 below shows the PISA Standards regarding data submission.

Exhibit 6.2.   Data Submission – PISA Standards

Standard 15.1   Each PISA participant submits its data in a single complete database, unless otherwise agreed upon.

Standard 15.2   All data collected for PISA will be imported into a national database using the Data Management Expert (DME) data integration software provided by the international contractors following specifications in the corresponding operational manuals and international/national record layouts (codebooks). Data are submitted in the DME format.

Standard 15.3   Data for all instruments are submitted. This includes the assessment data, questionnaires data, and tracking data as described in the PISA operations manuals.

Standard 15.4   Unless agreed upon, all data are submitted without recoding any of the original response variables.

Standard 15.5   Each PISA participating country's database is submitted with full documentation as specified in the PISA operations manuals.

Standard 19.1   The timeline for submission of national databases to the international contractors is within eight weeks of the last day of testing for the Field Trial and within eight weeks of the last day of testing for the Main Survey, unless otherwise agreed upon.

Standard 19.2   National Centres execute data checking procedures as specified in the PISA operations manuals before submitting the database.

Standard 19.5   To enable the PISA participant to submit a single dataset, all instruments for all additional adjudicated entities will contain the same variables as the primary adjudicated entity of the PISA participant.

6.2.13.   Be Available During Post-Submission Data Processing

Detailed processing checks and re-codings will be conducted at Core A Data Management following the submission of your data. Some of these checks may require National Centres to compare the data against the hard copies of instruments.

You will need to arrange for a Data Manager to be available to work with Core A Data Management during the data processing process following data submission. To ensure that the project's international timeline is adhered to, Data Managers should respond to data cleaning queries sent by Core A Data Management within **3 working days**.

In some instances, Core A will not be able to approve or process data without consultation and resolution on data inconsistencies. Therefore, it is important for Data Managers to be available to avoid any delays in processing and data delivery from Core A Data Management.

You are also encouraged to identify administrative support staff, if they are available to you, to assist in these data processing activities.

The Data Manager Standard is shown in Exhibit 6.3 below.

Exhibit 6.3.   Data Managers – PISA Standards

Standard 19.3   National Centres make a data manager available upon submission of the database. The data manager:

- is authorised to respond to international contractor data queries,
- is available for a three-month period immediately after the database is submitted unless otherwise agreed upon,
- is able to communicate in English,
- is able to respond to international contractor queries within three working days, and
- is able to resolve data discrepancies.

6.2.14.   Archive your Field Trial Materials

It is important for the international contractors to have final versions of all national materials.

For computer-based countries, the Core A Cognitive contractor will already have final electronic versions of all your test materials, but you will be asked to submit final version of coding guides, school-level materials, and any other relevant material for archiving.

For paper-based countries, the Core A Cognitive contractor will have final electronic versions of all your assessment materials (i.e., booklets). However, once your national version(s) of the material are finalised, you will be instructed to send the electronic versions of all questionnaires, coding guides, and school-level materials, as well as a printed copy of all your assessment materials for archiving purposes, to Core A (detailed instructions will be sent with the task).

Additional information regarding this task will be sent closer to the task deadline.

You should ensure you have easy access to your Field Trial materials because you may need them to respond to queries that arise during data processing or data analysis.

Standards relating to the archiving of materials are shown in Exhibit 6.4.

Exhibit 6.4.   Archiving Materials – PISA Standards

Standard 19.4   A complete set of PISA paper-based instruments as administered and including any *national options*, is forwarded to the international contractors on or before the first day of testing. The submission includes the following:

- hard copies of instruments,
- electronic PDF copies of instruments

Standard 20.1   The international contractors will maintain a permanent electronic archive of all assessment materials, school-level materials and coding guides, including all national versions.

Standard 20.2   The National Project Manager must submit one copy of each of the following translated and adapted Main Survey materials to the international contractors:

- a hard copy of all administered Test Instruments, including national options (paper-based countries only);

- a hard copy of all administered Questionnaires, including national options (paper-based countries only);
- electronic versions of the school-level materials; and
- electronic versions of the Coding Guides.

Standard 20.3   Unless otherwise requested, National Centres will archive all Field Trial materials until the beginning of the Main Survey, and all Main Survey materials until the publication of the international report. Materials to be archived include:

- all respondents' paper-based test booklets and questionnaires (PBA countries) or USB drives containing completed SDS and all associated data (CBA countries)
- sampling forms,
- student lists,
- student tracking instruments, and
- all data submitted to the international contractors.

After completion of a survey, the National Centre will transfer this archive to the international contractor for Core A who will compile the national archives from all participants and transfer them to OECD after completion of the Main Survey.

6.2.15.   Complete and Submit the Field Trial Review Questionnaire

You will be asked to complete a Field Trial Review Questionnaire that gathers information about your experiences during the Field Trial preparation and Field Trial phases. The results of this review will be used both for improving the implementation of the Main Survey by the international contractors and for quality monitoring purposes. The international contractors are particularly interested in receiving feedback about your experiences in implementing the project (i.e., what worked well and what did not). These comments will be used to inform developments and make improvements in the Main Survey and in subsequent surveys of PISA. The Field Trial Review Questionnaire and instructions will be released in sections according to the timeline of task activities. You should complete and return it **within 4 weeks of submitting your database**.

6.2.16.   Monitor Data Collection of Online Questionnaires

During the data collection period, NPMs will be responsible for assisting schools with usernames and passwords for the online school and teacher questionnaires and monitoring data collection for the online questionnaires. Contractors will provide a tool to monitor the progress of users that are taking the questionnaires during the Field Trial. This tool is accessible only by the NPM and NPMs should refer to the School and Teacher Questionnaires Monitoring Manuals for detailed information.

6.2.17.   Begin Main Survey Sampling Preparation

The Main Survey School Sampling Preparation Manual, which details the sampling activities undertaken in preparation for the Main Survey, will be dispatched to you in **March 2017**. You

may begin work on your Main Survey sampling plan at this stage of the survey administration period.

CHAPTER 7 – SECOND REVIEW PHASE

7.1. Overview of Tasks

The second review phase is very short and you will need to determine the most efficient way of completing all tasks within this narrow timeline.

During the second review phase, you will complete the following:

- Review of Field Trial Data and Data Analysis Reports

- Review of Operational Procedures

- Begin Main Survey School Sampling Work

- Review Main Survey Testing Period

- Make Preparations for attending the NPM Meeting in November 2017

Activities during this phase are important for ensuring successful national implementation of the Main Survey. National review of test and questionnaire items will contribute to the selection of the final items for the Main Survey, reflecting a consensus on country views and priorities.

You will notice that few key documents are listed for this phase. The main activity, other than the review of international test and questionnaire items, will be a review of all national documentation and procedures relating to survey implementation. Additionally, depending on your Main Survey school sample schedule, this may be the time when you are also working on the Main Survey sampling forms.

7.2. Key Tasks during the Second Review Phase

7.2.1. Review of Field Trial Data and Data Analysis Reports

The time available to complete data cleaning and analysis is very short, but critical. Upon data delivery, the Data Management contractors will clean and analyse national data. According to the current Field Trial timeline, data submission from countries extends from mid-May to the end of November and analyses are expected to start as early as August 2017.

Once the standard Field Trial data cleaning and processing steps are completed by contractors, each National Centre will receive a national data package that will include: i) National Field Trial database (SAS and SPSS) that includes preliminary proxies for proficiency, ii) data reports that include background crosstabs, msigs[6] descriptive statistics on questionnaire variables, and item

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[6] Countries will receive means and standard deviations in groups (msigs) that contain *(continued next page)*

analysis on cognitive items, and iii) documentation regarding item misfit information on which countries need to focus when reviewing national data; and iv) a set of instructions on how to check national data.

National data will be analysed in batches as described below.

- Batch 1 includes data submitted and approved[7] by 31 July 2017. These databases will be cleaned and available for analysis by the end of August and will contribute to the item selection process for the Main Survey instruments. The Field Trial data package will be delivered to countries around the end of September 2017.

- Batch 2 includes data submitted from 1 August to 14 September and approved by 15 September. The Field Trial data package will be delivered to countries on 15 December. These databases will not contribute to the item selection process for the Main Survey instruments.

- Batch 3 includes data submitted 16 September to 29 November and approved by 30 November. These databases will be cleaned and analysed with the Field Trial data package delivered to countries by the end of January 2018.

Note: Data submission dates are critical dates of delivery to Data Management contractors. Due to time constraints and Main Survey preparation processes, data submissions delivered to Data Management after 30 November (or not approved by 1 December) may receive only a minimum level of data processing. National Centres should adhere to their scheduled delivery date and perform all consistency checks on the data frequently prior to data submission to avoid any issues during Data Management data processing.

In addition, around the end of September, countries will also receive draft proposals of the Main Survey instruments. For the cognitive materials, this information will be presented as a document listing the proposed units and items for the Main Survey instruments with an explanation of the rationale and constraints for item selection. For the questionnaires, this information will be presented as PDF files containing the proposed questionnaire content along with a review sheet to collect your feedback.

As the NPM, you should review and check the Field Trial data packages and the proposed instruments, in conjunction with other members of the team that may include the National Data Managers or other experts. The timeline for National Centres to perform these tasks is very limited.

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descriptive statistics for further analysis. Country data files will be separated: school data files, student data files, and teacher data files (if applicable). Country student files contain cognitive items (raw and scored); context questionnaire items, and optional questionnaire items such as Educational Career, Information and Communications Technology, Well-Being, and Parent questionnaires.

[7] Data Management approval requires national data to meet the standards of data delivery, including delivery of all required data files and documentation and absent of any missing data or information.

7.2.2. Review of Operational Procedures

National Project Managers should carefully review the school-level materials in conjunction with any Test Administrator or school staff feedback you may have received (including questions asked by these groups) in order to note some proposals for clarifying wording, layout, or formatting of the national versions of your school-level materials. The Main Survey versions of these will be released in October 2017. You should also consider the response rates of schools and students — whether these were problematic overall or in specific areas or types of schools — and devise strategies for enhancing response rates for the Main Survey.

You may want to review your informational materials and national communication protocols and consider how these can be improved. Clear, concise informational material in a language and style that appropriately targets schools, students, parents, and other groups can be a valuable tool for securing participation. Strategies can be discussed with Core A Survey Operations, which will host webinars so that countries can share strategies for improving school and student participation. You may also want to review the materials shared by other countries on the PISA Portal resource site.

If, in the course of any part of this review process, you identify issues you think may be of international relevance, please inform Core A Survey Operations at PISA-SurveyOperations@westat.com.

7.2.3. Begin Main Survey School Sampling Work

The Main Survey School Sampling Preparation Manual will be dispatched to you in March 2017. The sampling requirements for the Main Survey are much more rigorous than those for the Field Trial, so more negotiation time will be dedicated to your Main Survey school sampling tasks.

One of the major differences between the Field Trial and Main Survey phases is the school sample design and the technical standards associated with sampling, including those about population coverage, number of assessed students, and response rates. Therefore, more detailed documentation of your sampling parameters, in particular a school sampling frame that covers all of the target population in your country, is required. These procedures are explained in full in the Main Survey School Sampling Preparation Manual.

You will work with Core C Sampling to prepare your Main Survey school sampling tasks. The negotiation of your tasks will be based on the PISA standards as shown in the exhibits below. This will be conducted via a series of sampling forms that will be explained in detail in the Main Survey School Sampling Preparation Manual.

Please note that Core C Sampling will draw your sample of schools for the Main Survey and that any differences in this arrangement must be negotiated with Core C Sampling far in advance.

As discussed in detail in the Main Survey School Sampling Preparation Manual, features of your sampling plan will be agreed upon with Core C Sampling progressively according to an agreed timeline. In most cases, you should allow **2 months of intensive communication** (perhaps

more depending on the complexity of the sample design) from the beginning of discussions related to your Main Survey school sample to the selection of the school sample. You should therefore agree on your sampling schedule about **1 year** before your Main Survey testing period and begin negotiating your sampling work about **6 months before this testing period.** This gives you enough time to provide schools with notice of their inclusion in the sample. You should begin discussions with Core C Sampling about this timeline well before the NPM Meeting in November 2017 – in fact, you will be asked about this schedule right after your Field Trial sampling forms are completed. This is especially the case for early testing countries, i.e., those planning to test in March or April 2018 and countries wishing to implement sampling options.

The NPM Meeting in November 2017 will be an opportunity to meet in person with Core C Sampling and discuss issues related to your sampling tasks, if desired or requested by Core C Sampling. You should come prepared for this discussion, having thoroughly read the information in the Main Survey Sampling Preparation Manual. You should also discuss any sampling-related issues with relevant persons within your country, such as your national committees and those who manage and maintain school enrolment data. This will maximise the opportunity for issues to be resolved in your face-to-face discussions with Core C Sampling in November 2017.

If you are responsible for the administration of PISA in an additional adjudicated entity, or if your country has some schools or study programmes for which it is difficult to identify the language(s) of testing, your intentions for the Main Survey regarding these situations will form part of your sampling task work. A review of your Field Trial procedures in these particular cases and a discussion of and eventual agreement upon procedures for the Main Survey will form part of the sampling negotiation process you will undertake with Core C Sampling.

One of the first forms you will be required to submit is your school sampling frame, which is a complete list of the schools in your country that have any possibility of enrolling students who fit the target population definition. It is essential that the data on your sampling frame be complete, accurate, and as up to date as possible. Please discuss any issues you may have about your sampling frame preparation with Core C Sampling as soon as you become aware of them.

Once all necessary information regarding your sampling tasks has been received by Core C Sampling and agreed upon, Core C Sampling will draw your sample of schools and send this list to you at the time agreed upon.

The standards regarding sampling are shown in the exhibits 7.1 and 7.2 below. All PISA standards relating to sampling are discussed in detail in the Main Survey Sampling Preparation Manual.

Exhibit 7.1.   Target Population and Sample Sizes, PISA Standards

Standard 1.1. *The PISA Desired Target Population* is agreed upon through negotiation between the National Project Manager and the international contractors within the constraints imposed by the definition of the *PISA Target Population.*

Standard 1.2. Unless otherwise agreed upon only *PISA-Eligible students* participate in the test.

Standard 1.8. The student sample size for the computer-based mode is a minimum of 6,300 assessed students, and 2,100 for additional adjudicated entities, or the entire *PISA Defined Target Population* where the *PISA Defined Target Population* is below 6,300 and 2,100 respectively. The student sample size of assessed students for the paper-based mode is a minimum of 5,250.

Standard 1.7. The *PISA Defined Target Population* covers 95% or more of the *PISA Desired Target Population.* That is, *school-level exclusions* and *within-school exclusions* combined do not exceed 5%.

Standard 1.9. The school sample size is a minimum of 150 participating schools, and 50 participating schools for additional adjudicated entities, or all schools that have students in the *PISA Defined Target Population* where the number of schools with students in the PISA Defined Target Population is below 150 and 50 respectively. Countries not having at least 150 schools, but which have more students than the required minimum student sample size, can be permitted, *if agreed upon*, to take a smaller sample of schools while still ensuring enough sampled PISA students overall.

Exhibit 7.2.   School and Student Sampling, PISA Standards

Standard 1.4. Schools are sampled using agreed upon, established and professionally recognised principles of scientific sampling.

Standard 1.6. Students are sampled using agreed upon, established and professionally recognised principles of scientific sampling and in a way that represents the full population of *PISA-Eligible students.*

Standard 1.10. The final weighted school response rate is at least 85% of sampled eligible and non-excluded schools. If a response rate is below 85% then an acceptable response rate can still be achieved through agreed upon use of replacement schools.

Standard 1.11. The final weighted student response rate is at least 80% of all sampled students across responding schools.

7.2.4. Review Main Survey Testing Period

Part of the preparation of your school sampling work will be the confirmation of your testing dates for the Main Survey. These were initially proposed prior to the Field Trial, but there may have been some changes that you will need to discuss with Core C Sampling. Since eligibility for inclusion in the international database is computed on the basis of student age and testing dates, it is essential that this information displayed on the PISA Portal is correct. Exhibit 7.3 below shows the PISA standard with regard to the testing period.

Exhibit 7.3.   Main Survey Testing Period, PISA Standards

Standard 1.3. Unless otherwise agreed upon, the testing period:
- is no longer than eight consecutive weeks in duration for computer-based testing participants,
- is no longer than six consecutive weeks in duration for paper-based testing participants
- does not coincide with the first six weeks of the academic year, and
- begins exactly three years from the beginning of the testing period in the previous PISA cycle.

Your confirmed testing dates will form the basis for many of the upcoming activities, for example the negotiation of schedules for the preparation of materials for the Main Survey.

7.2.5. Make Preparations for attending the NPM Meeting in November 2017

The November 2017 NPM Meeting will present information about the Field Trial Analysis and the Main Survey instruments. It will also be an opportunity to discuss other aspects of your national implementation, such as finalisation of materials prior to the Main Survey. These matters are discussed further in the next chapter. You should review these upcoming activities so you can make use of the opportunity provided at this meeting to resolve any issues in face-to-face discussion with staff from the appropriate international contractor.

CHAPTER 8 – MAIN SURVEY PREPARATION PHASE

8.1. Overview of Tasks

During this phase, you will complete the following:

- Update and/or prepare more promotional material for education authorities and schools;

- Attend the NPM Meeting and KeyQuest trainings;

- Negotiate your Main Survey School Sampling Tasks

- Prepare the Main Survey instruments and school-level materials

- Finalise non-verified minority language instruments for the Main Survey

- Nominate International PISA Quality Monitors

- Install Main Survey version of KeyQuest

- Liaise with schools; select the student samples

- Recruit and train Test Administrators

- Plan staffing and resources for coding

- Attend coder training

8.2. Key Tasks during the Second Review Phase

8.2.1. Update and/or prepare more promotional material for education authorities and schools

After the Field Trial, you may find that schools and students are more reluctant to participate than you expected. This could be for many reasons such as changes in the political situation in your country, part of your country that does not support PISA or increased resistance to more testing from teachers and parents. If you have problems for the Field Trial, then it is likely that the problem will be worse for the Main Survey when you must select a random sample of schools.

Therefore, it is very important that you determine as best you can what the problems are. This will allow you to plan early and prepare promotional material to counteract these problems. It is

likely that you will need a variety of materials that target different groups: national, regional and district education agencies; teacher groups; parent organisations; school administrators; and students.

Apart from the examples of endorsement materials available on the portal in the PISA Survey Operations Resource folder, it is important that you consult directly with the survey operations team.

8.2.2. Attend the NPM Meeting and KeyQuest trainings

The Main Survey NPM meeting in November 2017 will brief NPMs on procedures for the Main Survey. There will be an opportunity to review draft versions of paper-based and computer-based test instruments and questionnaires, to consult on Main Survey sampling work, and to discuss data analysis plans.

A number of documents will be provided to NPMs in preparation for this meeting. These include a document with the updated Main Survey Integrated Design that will detail the proposed number of test forms and questionnaires and their composition, as well as documents with the procedures for the Main Survey Materials Preparation with detail for all of the activities relating to the translation, adaptation, and verification of the test instruments. Also, prior to this meeting, a draft of the Main Survey school-level materials will be distributed in September 2017. You will have the opportunity to consider materials and provide feedback prior to the release of the final versions to be released in October 2017.

Your preparatory activities for this meeting should focus on a review of the operations manuals and proposed test and questionnaire instruments, consulting with your PISA Governing Board member and other national staff/experts where necessary.

8.2.3. Negotiate Your Main Survey School Sampling Tasks

As discussed in the last chapter, you will be continuing to work with to Core C Sampling on the negotiation of your Main Survey school sampling tasks and the selection of your school sample during this phase.

8.2.4. Prepare the Main Survey Instruments and School-level Materials

Preparation of Test Instruments

A key difference between the Main Survey and Field Trial preparation phases is that you will already have translated and adapted the materials. Therefore, the focus of your activities in this regard will be on reviewing your national statistics for the retained new items and correcting errors. Please note that preferential changes or linguistic improvements are not possible at this time.

Revisions to new test items selected to carry through to the Main Survey and to related coding guides will be minimal. Revisions will only be made if necessary, and these will be clearly documented for you to reference and check.

The process for preparing national versions of the Main Survey cognitive instruments for both computer- and paper-delivered versions will start after the release of the first set of national Field Trial data reports on 30 September 2017. This process and timeline will meet the requirement that the assembly of national SDS must start on a rolling basis, beginning mid-November 2017.

For the new cognitive items, countries will be asked to

1) review any flagged items to see if an error can be identified that may have caused differential item functioning. In this process, countries will refer to Field Trial item information report provided by the international contractors with the Field Trial national data reports. It is to be noted that such issues may not be found at all, or may not be linguistic to begin with.

2) document any other outright, serious errors (including layout issues) identified after the Field Trial instruments were finalised, and document these carefully with a justification for change in the Change Request Form.

3) check carefully that all errata included in the latest **Field Trial** errata list, have been implemented and to document any missed errata. Note that revisions and errata spotted after the last released Field Trial errata will be systematically checked and implemented if needed by the verifier.

During the verification process, international verifiers and Translation Referee will then review all requests. Agreed national changes and global revisions made in the source will be implemented in the national version centrally by Core D Translation Verification. This process is the same for countries taking the computer-based assessment and for countries taking the paper-based assessment.

The above process will be described in detail in documents to be released at a later date.

Particular attention should be paid to the review of your national data reports for the retained test. However, it is likely that there will not be time for an extensive review.

Preparation of Questionnaires

In the case of questionnaire items, the review of your data reports should focus on issues such as the distribution of responses across response categories and ensuring cross-checks to other national data sources to confirm that response patterns are as would be expected.

No changes in your national versions of the questionnaire items are expected between the Field Trial and the Main Survey unless there are clear errors in the material. If you detect errors, any corrections will need to be agreed by the Core A international contractors. Moreover, all national

options like additional questions that you would like to add to the international master must be implemented and tested for the Field Trial already. It will not be possible to add any new national questions for the Main Survey only.

As with the cognitive instruments, the process for preparing national versions of the Main Study questionnaires for both computer- and paper-delivered versions will start after the release of the first set of national Field Trial data reports and the proposed Main Survey questionnaire items on 30 September 2017.

For the questionnaires, countries will be asked to:

1. review the national questionnaire data to confirm that response patterns are as would be expected.

2. document feedback on the proposed Main Survey questionnaire items in the review sheet

3. document in the Main Survey Questionnaire Adaptation Spreadsheet (QAS) any errors that must be corrected in the national version and include a justification for the correction from the Field Trial data.

Requests for changes to the national questionnaires will be reviewed by the verifiers and the international contractors and implemented centrally in the Main Survey questionnaires where necessary. In addition, the international contractors will ensure the errata identified after the Field Test are implemented in the national questionnaires.

Countries will then be asked to review and test their Main Survey questionnaires and sign off.

The above process will be described in detail in the PISA Newsletter and discussed at the NPM Meeting in November 2017.

Prepare Main Survey Paper Instruments

To better ensure comparability of the paper-based assessment materials across countries and languages, testing booklets are centrally created by Core A Cognitive and then reviewed and approved by countries. As part of this process, you will be asked to complete the following steps:

- Update the common booklet parts, which included the cover, general instructions, formula sheet for mathematics, and the acknowledgements page.

- Review and approve final clusters

- Review and approve finalised booklets

Core A Cognitive will provide you with final print-ready files of the booklets but must be used as provided. During printing, it is your responsibility to confirm that your print quality will be the same as in the Field Trial if you are conducting the paper-based assessment or the paper-based questionnaire, assuming that your Field Trial materials are produced at an acceptable

print quality. It is important that the materials received from the printers are of the same standard as agreed upon during the Field Trial phase and are in accordance with the PISA standard for print quality described in chapter 5. It is strongly recommended that you send the final set of pdf files that you received from Core A Cognitive to your printer, together with a set of hard copies of the materials as a sample, and check the first run of printing before finalising your print run. Consult with Core A Cognitive if you have concerns or questions about print quality of the materials.

As with the Field Trial, countries implementing the paper-based tests and questionnaires must be printed as separate booklets to avoid the possibility of students returning to the test material during the questionnaire session. As the test and questionnaire booklets are separate, care should be taken to make sure that students receive the correctly identified booklets so that these can be matched without error for data entry.

Preparation of Main Survey Student Delivery System and USBs (CBA instruments)

The Student Delivery System (SDS) is a self-contained set of applications for delivery of the PISA computer-based assessments and computer-based student questionnaires. A master version is assembled first for countries to test within their national IT structure. The goal is for countries to become familiar with the operation of the SDS and to check the compatibility of the software with computers being used to administer the assessment.

With the master SDS, Core A Student Delivery System also releases the System Diagnostics software. The System Diagnostics is a version of the SDS without the assessments and questionnaires. It is intended to be given to schools to check the compatibility of the school computers with the PISA software.

Once all components of national materials are finalised, approved and locked, including both the questionnaires and the tests, Core A Student Delivery System assembles and tests the national SDS that is then released to countries for national testing. National Centres are expected to test the SDS fully following a detailed testing plan that accompanies the SDS. The goal of the national testing is to identify any residual content or layout issues, incompatibilities with hardware and software commonly used in schools, and errors in assembly of the SDS components. Where issues are identified, those are corrected and a second SDS is released. Once countries sign off on their national SDS, their CBA instruments are ready for the Main Survey and can be copied to USBs for distribution to schools.

See Chapter 5 for more information about preparing the USB drives for data collection.

Preparation of School-level Materials

The school-level materials will require further revision following the Field Trial in order to improve the quality and efficiency of field operations and make necessary updates based on the Main Survey. Again, these global revisions will be clearly documented.

You will again need to negotiate all adaptations to school-level materials with Core A Survey Operations. As for the PISA 2018 Field Trial, countries make adaptations directly to the Word documents using the track changes and comments functions. Core A Survey Operations will continue to use the School-level Materials Adaptation Form (SMAF) to document the progress of adaptations. Also, unlike the Field Trial, the Test Administrator's Script will not be verified by Core D Translation Verification.

8.2.5. Finalise Non-Verified Minority Languages Instruments for the Main Survey

You will have previously indicated, as part of your Field Trial sampling and translation plan negotiations, whether you intend to use national versions in more than one national language of instruction and, if so, which languages will be used in your assessment.

It is important to note that all national versions used in schools attended by more than 10 percent of your national target population should be submitted for international verification unless adapted from another verified national version. This work would have been completed prior to the Field Trial. National versions used in schools attended by less than 10 percent of the sampled students are non-verified by the National Centre and must be negotiated directly with the Core A contractor.

The preparation of minority languages that are non-verified is mostly a national responsibility, with some support from the Core A contractors in making the versions accessible to the National Centre. In most case, these will be borrowed from another verified version. However, a few non-verified languages are newly developed for the Main Survey and a schedule and process has been agreed with the Core A contractor. In these few cases, it is expected that the National Centre will implement a national verification process to ensure the quality of materials.

It is also important for National Centres to understand that the work associated with these non-verified minority languages is different for cognitive materials and questionnaires and must be scheduled accordingly. For the cognitive materials, the involvement of the National Centre is restricted to informing the Core A contractor which files they want to use as source and in implementing national adaptations and checking layout. The cognitive materials are borrowed as an intact set. For the questionnaires, the National Centre will first need to finalise its main questionnaires in order to lock the final structure that will match the international version of the questionnaire. At that time, the Core A Contractor will replicate this file for the minority languages and the National Centre will need to transfer the translated text. This process will be explained and discussed separately with the involved countries.

8.2.6. Nominate International PISA Quality Monitors (PQMs)

For the Main Survey, international PISA Quality Monitors will be nominated by NPMs for each participating country. Regardless of overall sample size, on average, 15 schools per country and 5 schools per adjudicated region will be visited.

Typically, two to four PQMs per country will be appointed depending upon the length of your data collection period. If the data collection period is short, you will need to nominate enough PQMs to ensure that the required number of schools is observed. This means, for example, that if you test all schools on the same day, you would need to nominate a large enough pool of PQMs from which 15 or 16 PQMs can be selected by Core A Survey Operations. Since it may be difficult to nominate so many PQMs, an alternative is to request selected schools to test on a different day.

Core A Survey Operations will provide you with PQM Nomination and Curriculum Vitae Guidelines to assist with nominating PQMs beginning **November 2017.** Note that PQMs should be familiar with assessment procedures and conditions relating to your national education system. They also need to be able to communicate fluently in English, have access to an email account, have access to a high speed internet connection, have access to necessary transportation, and should attend one of the national Test Administrator training sessions.

Please nominate PQMs at least **8 weeks prior to your first assessment date** to allow time for subsequent activities (e.g., ensuring PQMs are available to be trained by Core A Survey Operations and to attend your Test Administrator training session).

Core A Survey Operations will serve as the PQM co-ordinator and be responsible for hiring PQMs, training them, overseeing their work, and paying them. National Centres are responsible for ensuring that PQMs have all the necessary country-specific security and confidentiality documents.

Training of PQMs will consist of a comprehensive home-study training package developed by Core A Survey Operations. Following the home-study training, Core A Survey Operations will conduct webinars with the PQMs to answer questions and provide further instructions to prepare them for their tasks. PQM-related information will be provided on the PISA Portal in October 2017. PQMs do not have access to the PISA Portal.

Further details of procedures relating to both PQM and National Centre activities will be provided at the November 2017 NPM Meeting.

Exhibit 8.2 below lists the PISA standards in relation to international PISA Quality Monitors.

Exhibit 8.2.   PISA Quality Monitors, PISA Standards

Standard 12.1. PISA Main Survey test administration is monitored using site visits by trained independent quality monitors.

Standard 12.2. Fifteen site visits to observe test administration sessions are conducted in each PISA participating country/economy, and five site visits in each adjudicated region.

Standard 12.3. Test administration sessions that are the subject of a site visit are selected by the international contractors to be representative of a variety of schools in a country/economy.

8.2.7. Install Main Survey Version of KeyQuest

In January 2018, the Main Survey version of KeyQuest will be dispatched to all National Centres. Changes to KeyQuest since the Field Trial will reflect any required changes for the Main Survey procedures. Some procedures regarding the production of validity reports may also change.

Please install this software and familiarise yourself with any changes to procedures prior to using it for drawing student samples (and teacher samples if applicable). Detailed specifications about the installation and functionality of KeyQuest are explained in the Main Survey Within-School Sampling Manual (WSSM). This manual will be updated after the Field Trial as necessary.

8.2.8. Liaise with Schools; Selection of the Student Samples

As with the Field Trial, schools will need to provide you with a list of enrolled students whose grades (i.e., grade 7 or above) and dates of birth fit the population definition you negotiated with Core C Sampling. Any additional students for any sampling options you are implementing must also be included in this list. You should plan these activities in such a way as to be able to send schools their Student Tracking Forms **at least 2 weeks before the assessment day.**

If a central database with **up-to-date and sufficiently detailed student-level information is available,** you can use this instead. However, the database must provide student name, grade, gender, month, and year of birth (and, if possible, study programme).

Please review and update your Field Trial procedures for requesting student lists (and teacher lists if applicable) from schools, taking careful note of any changes to the Main Survey version of KeyQuest, as noted in the Within-School Sampling Manual (WSSM), which will be updated after the Field Trial. Some guidelines on instructions to schools, and the information required in the student lists (and teacher lists if applicable), is sent to schools in the Field Trial preparation phase (chapter 5 of this manual in the section titled Obtain student (and teacher if applicable) lists from Schools). You should also review this while revising and preparing your materials and procedures.

If you need to send instructions to schools requesting the list of students prior to completing the adaptation/translation of the other sections of your School Co-ordinator's Manual, this is acceptable. However, please inform Core A Survey Operations of your proposed two-stage approach to schools. To implement this two-stage approach, the letter to the school should be translated into English and sent to Core A Survey Operations for discussion and agreement before it is sent to the school. As the information gathered from schools needs to be as up to date as possible, requests for student lists should not be made before January 2018.

It needs to be emphasised to school staff preparing the list of students that all students eligible for participation in PISA (and any additional sampling options) must be listed. This includes students with special educational needs or limited experience in the test language(s), those who are frequently absent, those pending disciplinary measures, and those who may be on work placement programmes at the time of testing. **Incomplete student lists could seriously**

compromise the quality of the sample and cause your data integrity to become questionable. Core C Sampling should be consulted if there are any questions about a student's eligibility for listing.

Unless otherwise agreed upon, the student sample must be selected using KeyQuest. You must receive approval from Core C Sampling if you want to select students using other software. This helps to ensure that students are sampled uniformly across countries in accordance with the principles of scientific sampling procedures and that all data coming from that sampling operation are in the same specific format (see Standard 1.13).

Please carefully review the Main Survey Within-School Sampling Manual, which provides a detailed description of how KeyQuest samples students (and teachers if applicable). There are a number of preparatory activities that you will need to undertake prior to sampling students (and teachers if applicable), including ensuring that certain school-level information (such as student study programmes) are imported into KeyQuest. The Main Survey Within-School Sampling Manual also describes procedures for enhancing the efficiency of student sampling.

Please review the section of chapter 5 titled Work With Schools as you review staffing and logistical issues for this aspect of the survey.

8.2.9. Recruit and Train Test Administrators

The same PISA standards apply to the recruitment and training of Test Administrators for both the Field Trial and the Main Survey (see Standards 8.1, 8.2, and 9.4 and also chapter 05 where these standards were displayed).

As with the Field Trial, Test Administrators should not be the reading, mathematics, or science teacher of any students in the assessment sessions. It is preferred that Test Administrators not be staff members in the participating schools. Test Administrators need to be familiar with standardised testing procedures and school conditions in the national context.

It would be a great advantage to recruit individuals involved in test administration during the Field Trial. If you are using Test Administrators who were involved at the Field Trial, you may wish to consult with them prior to finalising your training materials to incorporate any feedback or suggestions they may have.

Shortly before the commencement of PISA testing for the Main Survey, you should organise a training session for Test Administrators. All Test Administrators should receive in-person training (see Standard 9.4 and chapter 05). Countries must get permission from Core A Survey Operations if they plan to use another form of training such as via webinar. Core A Survey Operations will host trainer training webinars to review setting up and conducting these in-person trainings.

The training should emphasise that procedures relating to the following features of administration should be both uniform across schools and consistent with the international procedures in the source versions of the school-level materials in respect of the following (among others):

- Session timing,

- Maintaining standard testing conditions,

- Student tracking,

- Assigning test booklets/Student Questionnaires or USB drives, and

- Maintaining test and questionnaire security and confidentiality.

Furthermore, experience from previous surveys indicates that providing Test Administrators with an overview of PISA is very useful because it gives them a sense of their important role within the broader context of the survey.

Please carefully review the section in chapter 05 on recruiting and training Test Administrators as you prepare for your Main Survey Test Administrator training.

8.2.10.   Plan Staffing and Resources for Coding

Countries will be required to assemble a coding team for the open-ended human-coded cognitive items. The coding process will take place after data are collected and prior to data submission. The international contractors will provide a clear coding design and specify characteristics of the coding team. A set of coding designs will be provided that will vary in terms of the number of coders to ensure that countries' needs are met regarding sample sizes per language. The available designs will assume a coding rate of approximately 1 000 responses per day per coder and a coding period no longer than 2 weeks. For planning purposes, countries should estimate approximately 3 weeks: up to 1 week for coder training plus up to 2 weeks for response coding. Core A Cognitive will provide each country with tailored information regarding timing and number of responses per coding after January 2018.

Countries will also be required to establish a process for coding occupations. For this process, some countries will put in place an internal process while other will rely on outside agencies, such as statistical offices.

Please note that if your sample size is increased because of separate adjudicated regions or additional students due to optional components, you will require more staff. Coding and data entry operations are discussed in more detail in the next chapter.

8.2.11.   Attend Coder Training

A coder training will be conducted in January 2018. Depending on the resources available to you, it is advisable that the individuals you nominate to attend this meeting be those who will be closely involved in supervising coding activities for Reading Literacy, Mathematical Literacy, Scientific Literacy, Financial Literacy and Global Competence. The approach during this training will be "train the trainer".

CHAPTER 9 – MAIN SURVEY PHASE

9.1.   Overview of Tasks

This section describes tasks directly associated with the preparations to the Main Survey data collection and Main Survey data processing.

During this phase, you will complete the following tasks **prior to the testing period:**

- Print, package, and distribute Main Survey materials to schools and Test Administrators as appropriate

During this phase, you will complete the following tasks **during the testing period**:

- Co-ordinate activities of Test Administrators and the international PISA Quality Monitors (PQMs)

- Continue liaising with schools

- Monitor school and student response rates

- Organise follow-up sessions

- Monitor data collection of online questionnaires

Also during this phase, you will complete the following tasks **post-testing period:**

- Return materials to National Centre

- Submit your sampling data to Core C Sampling

- Review item coding and data entry operations

- Continue to monitor data collection of online questionnaires (after the testing period)

- Recruit item coders

- Review guidelines and plan for item coding procedures and coding design

- Review guidelines and plan for occupation coding procedures

- Process data entry in the DME

- Submit database to Core A Data Management

- Be available during post-submission data processing

- Complete and submit the Main Survey Review Questionnaire

- Archive your Main Survey materials

- Review your national data and analysis reports

- Follow the preparation of the International Database

In the Field Trial and Main Survey phases, many aspects of the tasks and procedures are similar. There are also some features that are unique to each phase. To avoid overlap with the Field Trial phase chapter, we do not repeat information here that is equivalent to material already presented. Instead, we refer you to the relevant sections of that chapter, and to key documents, where appropriate. Please take time to review all relevant sections of the Field Trial phase chapter while reviewing this chapter. Make sure you carefully also note the features that are new to the Main Survey phase discussed in this chapter

9.2. Key Tasks during the Main Survey Phase – Prior to the Testing Period

9.2.1. Print, Package, and Distribute Main Survey Materials to Schools and Test Administrators as Appropriate

In addition to printing, PBA countries have more things to consider in packing and distributing assessment materials than CBA countries. As mentioned in chapter 06, there is no single best way to package paper materials and/or prepare USB drives or distribute materials to schools. Several scenarios were presented and discussed in that section, and by now, you should have in place a plan for printing, packing, and distributing your material for the Main Survey based on what was done for the Field Trial. If you are uncertain, please discuss this with Core A Survey Operations.

Keep in mind that there are three primary concerns in making plans for the printing, preparing packaging, and shipping of PISA assessment materials:

- That materials are secure at all times;

- That materials assigned to each student are the ones that the student uses in the testing session (and clearly identified as such); and

- That print quality is of a high standard for PBA instruments and that the USB drives are of acceptable quality for all CBA instruments.

For PBA instruments, it is strongly recommended that you request a sample of each printed instrument and manual and check for print quality before finalising your print run. You will not need to resubmit samples to Core A Cognitive unless there has been a change in your situation.

To protect test security, it is strongly recommended that the paper instruments and USB drives be sent to the Test Administrators rather than to schools. If these materials are sent to participating schools, you should review procedures to ensure that their security is not compromised. Please consult with Core A Survey Operations if you have questions or concerns.

When the student sample is selected in KeyQuest, test forms will be assigned automatically to students as KeyQuest generates the Session Attendance Forms. Refer once again to the most current version of the Main Survey Within-School Sampling Manual for further details about how to use KeyQuest to select the student sample (and teacher sample if applicable).

In addition, NPMs will be responsible for distributing usernames and passwords for the online school and teacher questionnaires to schools. NPMs will receive this information from contractors 15 days before the Main Survey scheduled starting date.

9.3. Key Tasks during the Main Survey Phase – During the Testing Period

9.3.1. Co-ordinate Activities of Test Administrators and International PISA Quality Monitors (PQMs)

As for the Field Trial, the co-ordination of the activities of the Test Administrators is a significant task involving the scheduling of testing dates, the provision of contact information for each school, the maintenance of the security of testing materials while in the field, and the secure collection and return of these materials. Depending on the number of Test Administrators and the length of your testing period, the assigning of test dates to schools and the co-ordination of these activities may require substantial logistical and communication work on your part because of the larger sample for the Main Survey.

Test Administrators should be able to contact the National Centre before, during, and after the testing period. It is essential that the Test Administrator/school staff inform you of any changes to testing dates, as these may affect the international quality monitoring activities. You should develop a strategy for recording these changes and communicating them to the relevant PQMs.

9.3.2. Continue Liaising with Schools

Immediately prior to a school's test date, and also on the date of the test itself, you should be prepared for a high number of last-minute queries. Many of these queries are likely to relate to final arrangements for the test. This is especially true for the computer-based assessment. Examples of such queries are listed in the Field Trial phase chapter. You are encouraged to review and update your procedures for dealing with such queries based on your experiences from the Field Trial. Consult Core A Survey Operations for answers to queries and support as needed.

As with the Field Trial, you are encouraged to create a help desk and designate at least two National Centre staff to liaise with schools.

9.3.3. Monitor School and Student Response Rates

The PISA standards regarding response rates are important in achieving high-quality, unbiased data. Early detection of any problems with response rates during the Main Survey is important. Therefore, during the Main Survey testing period you will need to develop and implement a procedure to monitor the school and student response rates.

If you have concerns prior to the Main Survey about expected response rates, please contact Core A Survey Operations to discuss your concerns and plans as soon as possible. Core A Survey Operations will also host webinars on improving response rates, provide resource materials on the portal, and consult with countries on specific issues upon request.

Similarly, if during survey administration you encounter difficulties with response rates, please contact Core A Survey Operations promptly to discuss possible ways to improve them.

In the event that your response rates are at risk of not meeting the standards, then extra resources or effort may be required to address this. The nature of this additional effort will vary depending on your national context but might be directed towards ensuring improved participation at follow-up sessions or the involvement of upper-level authorities to encourage higher participation at the school level.

The PISA standards in relation to school and student response rates are shown in exhibit 9.4.

Exhibit 9.1.   School and Student Response Rates, PISA Technical Standards

> **Standard 1.10.** The final weighted school response rate is at least 85% of sampled eligible and non-excluded schools.
> If a response rate is below 85% then an acceptable response rate can still be achieved through agreed upon use of replacement schools.
>
> **Standard 1.11.** The final weighted student response rate is at least 80% of all sampled students across responding schools.
>
> **Standard 1.12.** The final weighted sampling unit response rate for any optional cognitive assessment is at least 80% of all sampled students across responding schools.

Response rates are based on the target population. If you are participating in a national additional sampling option, response rates should not be based on the pooled sample of PISA and additional sample options students. Response rates should be considered separately for students selected for participation in PISA and students selected for participation in the national additional sampling option.

The following should be noted:

- Response rates are based on participation in the test session and the questionnaire session (note: students are not allowed to take the questionnaire if they did not take the test).

- A school with less than 50 percent participation among selected students who have not left the school or been excluded due to special educational needs will not be considered as a participating school.

- If a school has less than 25 percent participation among selected students who have not left the school or been excluded due to special educational needs, then that school and all students will be regarded as nonparticipants.

- If a school has more than 25 percent but less than 50 percent participation among the selected students who have not left the school or been excluded due to special educational needs, the students in these schools are regarded as respondents but the school is considered a non-respondent for the purposes of monitoring response rates.

Student response rates are calculated across all participating schools, whether sampled schools or replacement schools, and from the participation of students at the originally scheduled sessions and any follow-up sessions that may be required. The student response rate requirement must be met at the national level, not necessarily for each participating school.

Further discussion about school and student response rates can be found in the latest version of the Main Survey School Sampling Preparation Manual. You should ensure that you are familiar with these requirements.

9.3.4. Organise Follow-Up Sessions

It is recommended that as part of your field operations procedures you plan for follow-up sessions in schools as defined in the school-level materials. This is not to be confused with the overall response rate in Standard 1.11 (exhibit 9.1) but rather is meant as a guideline for you in monitoring response rates throughout your data collection period. Test Administrators should be aware of the need to monitor response rates. The National Centre must also have a monitoring system in place that allows time to intervene should the response rate not be adequate.

The Main Survey source versions of the Test Administrator's Manual, School Associate's Manual, and School Co-ordinator's Manual assume that follow-up sessions may need to be implemented. They provide detailed guidelines about how to decide (based on the number of students present) whether or not a follow-up session is needed.

These guidelines are intended to ensure that Test Administrators follow uniform procedures. You should review them carefully, incorporating this information into your Test Administrators' training.

Ensure that Test Administrators notify you as soon as it is known that a follow-up session will be required. Follow-up sessions have implications for the return shipment of materials (i.e., whether you ship material back in one or two batches), which you will need to plan for and convey to Test Administrators.

9.3.5. Monitor Data Collection of Questionnaires

For online questionnaires: During the data collection period, NPMs will be responsible for assisting schools with usernames and passwords for the online school and teacher questionnaires and monitoring data collection for the online questionnaires. Core A Questionnaire Technical will provide a tool to monitor the progress of users that are taking the questionnaires during the Main Survey. This tool is accessible only by the NPM and NPMs should refer to the School and Teacher Questionnaires Monitoring Manuals for detailed information.

For the Parent Questionnaire: Monitoring the collection of the Parent Questionnaire is important. As these are not collected online, a good approach is to ship the questionnaires to School Co-ordinators and ask them to send the questionnaires home with sampled students. The questionnaires should go home about two weeks before the assessment date and parents asked to return them to the School Co-ordinator via the student no later than the day of the assessment. A few days before the assessment, the School Co-ordinator should remind parents to return the questionnaire. The Test Administrator will then return the questionnaires with the assessment materials. The National Centre should monitor the return and request that the School Co-ordinator follow up as needed. In some cases, the National Centre contacts the parent directly. It is also advisable for the National Centre to include a postage paid return envelope so that the School Co-ordinator can conveniently ship questionnaires that are returned after the assessment date.

9.4. Key Tasks during the Main Survey Phase – Post Testing Period

9.4.1. Return Materials to National Centre

Following the assessment, all materials must be accounted for and kept secure. It is very important that strict procedures be followed in receiving and returning materials.

To help ensure that the international survey timeline and deliverables are adhered to, sampling data should be submitted to Core C Sampling **four weeks after your final test date**, and national data should be submitted to Core A Data Management **eight weeks after your final test date**. It is therefore crucial to plan carefully your national staffing and timeline for returning materials, since the schedule for recording school and student participation codes, instrument coding and data entry is tight. Test Administrators should ship materials back to you as soon as possible after the completion of an assessment. Depending on the resources available to you and the length of time it takes to return assessment materials, you should consider engaging the support of two to six staff working together to prepare materials for return depending on whether the mode of administration in your country is paper-based or computer-based and other considerations in your country.

Please note that if there is any breach of security such as a missing test booklet (including unused) or secure materials such as USB drives, it is essential that you take all possible steps to recover it immediately. General breaches of security or missing booklets or USB drives

should also be reported to Core A Survey Operations as soon as possible. Core A Survey Operations will then inform the OECD.

Having correct information on the Student Tracking Form, Session Attendance Forms, and the Session Report Form(s) greatly enhances the efficiency of the materials return process. During training, emphasise to Test Administrators the importance of the completeness and accuracy of this information. The PISA Quality Monitors will review carefully these documents at the schools they visit and reporting problems.

It is also recommended that you ask Test Administrators to package materials in a specific order, in the manner specified in the Test Administrator's Manual. Note that it is recommended that you revise your national item coding materials by selecting additional local examples of student responses from the Main Survey responses (see also the Field Trial phase chapter). You may wish to develop a procedure for recording this information at the same time as materials are being checked back.

9.4.2. Submit Your Sampling Data to Core C Sampling

After the tracking and attendance forms are updated and Session Report data and school participation data are entered in KeyQuest, the data, along with sampling validity reports, must be submitted to Core C Sampling via KeyQuest **within 4 weeks of the conclusion of testing in your country**. The content of sampling data and sampling validity reports will be described to you in the Main Survey School Sampling Preparation Manual and the Main Survey Within-School Sampling Manual (updated after the Field Trial as needed). Expect a substantial number of questions from Core C Sampling back to you from this data submission.

9.4.3. Review Item Coding and Data Entry Operations

The larger Main Survey sample size has logistical and resource implications. For example, a larger space will be necessary for coding; more administrative support may be required; and more computing resources may be needed for data entry operations. You should review your Field Trial staffing requirements and timeline with reference to the information on resources presented in the paragraphs that follow.

The Main Survey will require human coding for a larger number of responses than the Field Trial. A set of coding designs will be available for countries to choose from that will vary in terms of the number of coders to ensure that countries' needs are met regarding samples sizes per language. The available designs will assume a coding rate of approximately 1 000 responses per day per coder and a coding period of no longer than 2 weeks. For planning for this process, countries should estimate approximately 3 weeks: up to 1 week for coder training plus up to 2 weeks for response coding. Core A Cognitive will be able to assist you with tailored information regarding timing and number of responses per coding closer to that period after January 2018.

Countries will also be required to establish a process for coding occupations. For this process, some countries will put in place an internal process while other will rely on outside agencies, such as statistical offices.

When entering data, validation checks should be performed frequently on the data to check for any data inconsistencies. After all data has been entered, you should also allow for at least 1 week to complete the final validity checks detailed in the Data Management Expert (DME) Manual before submitting data to the Data Management contractors.

As data inconsistencies may take some time to investigate and resolve, it is best to plan additional time into the data entry schedule for investigation and resolution to any data inconsistency.

9.4.4. Continue to Monitor Data Collection of Online Questionnaires (after the testing period)

After the student data collection period is finalised, the online school and teacher questionnaires will remain open for 4 weeks. NPMs will continue to monitor the progress of users taking the questionnaires using the monitoring tool. In addition, NPMs will be able to upload data weekly to the Data Management Expert System (DME) to review the data for completeness. During this period, NPMs will receive reminders from contractors regarding the amount of time the online questionnaires will remain open and should contact schools as needed. Access to the online questionnaires will close 4 weeks after the student data collection period is completed and cannot be reopened. More information on how to monitor completion of the School and Teacher online questionnaires is provided in documentation that will be released with the online questionnaires.

Please keep in mind that a high response rate is essential so that data can be included in the analysis and reporting.

9.4.5. Recruit Item Coders

PISA standards require that item coders be recruited and trained in the manner described in Main Survey Procedures for Coding Constructed-Response Items. See exhibit 9.5 for the PISA standard relating to coder recruitment and training.

Exhibit 9.5.   Coder Recruitment and Training, PISA Technical Standards

> **Standard 14.1.** The coding scheme described in the coding guides is implemented according to instructions from the international contractor's item developers.
>
> **Standard 14.2.** Representatives from each National Centre attend the international PISA coder training session for both the Field Trial and the Main Survey.
>
> **Standard 14.3.** Both the single and multiple coding procedures must be specified in the *PISA operations manuals* (See Note 14.1), or an agreed upon variation thereof, are implemented.
>
> **Standard 14.4.** Coders are recruited and trained following *agreed procedures.*

> **Note 14.1.** Preferred procedures for recruiting and training coders are outlined in the PISA operations manuals.
>
> **Note 14.2.** The optimum number of Code Training session participants would depend on factors such as the expertise of National Centre staff, and resource availability.

It will be an advantage if coders from the previous surveys of PISA or from the Field Trial conducted in 2017 can be used for the coding. As with the Field Trial, coders should have a good understanding of mid-secondary level studies in the relevant subject domains and understand secondary level students and ways that such students express themselves. Remember that coders need to commit their time to the project for the duration of the coding since the coders' work is interdependent.

All people who code test items must undergo the specific PISA training, regardless of whether they have had related experience on other projects and regardless of whether or not they coded for the Field Trial.

Item coders also must sign a confidentiality form obliging them to not disclose the content of the PISA tests beyond the groups of coders and trainers with whom they are working. You will need to update the Field Trial version of your confidentiality form (a generic version is shown in appendix 3) and keep the signed confidentiality forms on file.

9.4.6. Review Guidelines and Plan for Item Coding Procedures and Coding Design

Please carefully review the specific guidelines for coding in the key document Main Survey Procedures for Coding Constructed-Response Items. As with the Field Trial, you should indicate whether or not your coding design is the same as the international design **no less than 4 weeks prior to the commencement of coding.** If it is different, Core A Cognitive will discuss and agree on the details of your design with you.

9.4.7. Review Guidelines and Plan for Occupation Coding Procedures

Guidelines for occupational coding procedures are given in the key document Guidelines for Coding Occupational Items. Please carefully review these guidelines in conjunction with the DME Manual.

9.4.8. Process Data Entry in the DME

As with the Field Trial, it is strongly recommended that you use the DME to enter the data because it is customised for PISA and its use reduces data entry errors. Please refer to the DME Manual for detailed information relating to installation, configuring instruments, data entry, and validity checks and well as information presented prior to the Field Trial.

If there are any significant delays during data entry at your National Centre, you should contact Core A Data Management as quickly as possible so that the international data cleaning schedule may be adjusted to accommodate this.

Although there will be minimal data entry resources required for computer-based countries, some staff resources will be required for the management of the electronic files that will be imported into the project database. It is recommended that the import of the electronic data start as soon as it is available, rather than waiting until the end of the data collection phase. In this way, any issues with the data or the codebook can be addressed before they have a critical impact on the schedule at a later time.

You should build sufficient time into your data management timeline (a minimum of five working days) to be able to review and produce validity check reports and to resolve discrepancies as specified in the Data Management Manual.

9.4.9. Submit Database to Core A Data Management

Please refer to chapter 6 for the PISA standards relating to the structural and technical aspects of data submission.

As noted, you should submit your database and related documents in the DME within **8 weeks of the end of the Main Survey** testing period unless another agreed-upon date has been negotiated with Core A Data Management. Standard 19.1 (exhibit 9.6) details aspects of data operations relating to the timeline and management. The main rationale for this standard is to help ensure adherence to the international timeline for cleaning, analysis, and reporting. It is also important in assisting Core A Data Management to plan staffing and resource allocations.

Exhibit 9.6.   Timeline for Data Operations, PISA Technical Standard

> **Standard 19.1.** The timeline for submission of national databases to the international contractors is within eight weeks of the last day of testing for the Field Trial and within eight weeks of the last day of testing for the Main Survey, unless otherwise *agreed upon*.

Please review the Data Management Manual and note any modifications or additions to the Validity Reports since the Field Trial before executing these checks on your data.

All data files, including all coding reliability files (OERS or OECS) and data notes/supporting documentation, should be uploaded to the confidential PISA 2018 FTP site as outlined in the Data Management Manual. Along with the exported DME database, the supporting files and documentation are essential in evaluating the data quality during the initial checks of data processing.

In addition to your delivery of data to Data Management contractors, it is important that you carefully plan the organisation and storage of your hard copy materials to ensure easy access should questions or concerns arise regarding your data. Often during data processing, Data Management contractors may have specific requests or inquires on your data that may involve

extensive investigation of specific issues against hard copies or electronic copies of materials. As such, it is important to keep these materials and resources stored in a secured place for future access.

9.4.10.   Be Available During Post-Submission Data Processing

It is critical that the country data managers are available after data submission to work with Core A Data Management contractors. Frequently, Data Management contractors correspond **with** countries for specific requests or to inquire about data issues and/or inconsistencies. As a result, the data manager **needs to be prepared to respond** to any Data Management requests within **3 working days**. To resolve any significant issue or inconsistency, the data manager may also need to be supported by administrative staff if they are available. It may be best to plan for the availability of one to two support staff to assist the data manager in the event of a data issue or concern.

In some instances, Core A *will not be able to approve or begin* to process data without consultation and resolution of data inconsistencies. Therefore, it is important for Data Managers to be available to avoid any delays in processing and data delivery from Core A Data Management.

Please refer to chapter 6 for the PISA Standard 19.3 for more information on the data manager's role and responsibility during this period.

9.4.11.   Complete and Submit the Main Survey Review Questionnaire

You will be asked to complete and submit to the Main Survey Review Questionnaire. A PDF form to do so will be emailed to you. Along with the other quality monitoring activities, the Main Survey Review Questionnaire contributes to the overall assessment of the quality of the implementation of PISA in your country and provides useful information for data adjudication. In addition, your feedback about your experiences in implementing the project — what worked well and what did not — will be used by the international contractors to consider changes in subsequent surveys of PISA.

The Main Survey Review Questionnaire will be available shortly before the launch of data collection and you will be asked to complete and submit your feedback **within 4 weeks of submitting your database**.

9.4.12.   Archive Your Main Survey Materials

Following the coding and data entry procedures, you will need to archive your Main Survey test and questionnaire materials.

For computer-based countries, the Core A Cognitive contractor will already have final electronic versions of all your test materials, but you will be asked to submit final version of coding guides, school-level materials, and any other relevant material for archiving.

For paper-based countries, Core A Cognitive will have final electronic versions of all your assessment materials (i.e., booklets). However, once your national version(s) of the material are finalised, you will be instructed to send the electronic versions of all questionnaires, coding guides, and school-level materials, as well as a printed copy of all your assessment materials for archiving purposes, to Core A (detailed instructions will be sent with the task).

Please refer to Chapter 6 for the PISA standards relating to the archiving of your national materials.

9.4.13. Review Your National Data and Analysis Reports

To ensure a high level of quality for Main Survey data, an interim data file is released to countries following the completion of Data Management Main Survey cleaning and analysis procedures. For this delivery, each National Centre will receive a national data package that will include: i) National, unmasked Main Survey database (SAS and SPSS) that includes preliminary proxies for proficiency, and ii) data reports that include questionnaire crosstabs, msigs[8] descriptive statistics on questionnaire variables, and item analysis on cognitive items; and a set of instructions on how to check national data. This interim delivery of national preliminary results will provide National Centres with the opportunity to review their data before the official release of the International Masked database, which will include plausible values, weights and replicate weights, and questionnaire indices.

For this interim database delivery, national data will be cleaned, analysed, and returned to countries in batches, similar to the Field Trial, based on the data collection timeline. According to the current Main Survey timeline, data submission from countries is expected to extend from mid-May 2018 to February 2019. Data will be analysed in batches as outlined below.

- Batch 1 includes data **submitted** by countries and **approved** by Core 3 Data Management **on or before 31 July 2018**. Countries that have had data files approved for this batch can expect Core 3 data files and reports (questionnaire crosstabs and msigs; cognitive item analysis) delivered by mid-October 2018.

- Batch 2 includes data **submitted** by countries and **approved** by Core 3 Data Management **on or before 31 October 2018**. Countries that have had data files approved for this batch can expect Core 3 data delivery and reports (questionnaire crosstabs and msigs; cognitive item analysis) delivered by mid-January 2019.

- Batch 3 includes data **submitted** by countries and **approved** by Core 3 Data Management **by 9 February 2019.** Countries that have had data files approved for this batch can expect

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[8]Countries will receive means and standard deviations in groups (msigs) that contain descriptive statistics for further analysis. Country data files will be separated: school data files, student data files, and teacher data files (if applicable). Country student files contain cognitive items (raw and scored); context questionnaire items, and optional questionnaire items such as Educational Career, Information and Communications Technology, Well-Being, and Parent questionnaires.

Core 3 data delivery and reports (questionnaire crosstabs and msigs; cognitive item analysis) delivered by early April 2019.

Note: Data submission dates are <u>critical for the</u> Data Management contractors. For the Main Survey, the contractors are bound to provide deliverables to the OECD following their reporting timeline. Therefore, delays in data submission is particularly concerning for the late testing countries (those starting the Main Survey Data Collection after 1 August 2018) and delays may result in a modified processing and analysis timeline. For example, national results may not be available at the time the first preliminary results are presented to the PGB (tentatively June 2019).

When National Centres receive the interim, national data delivery from Data Management contractors, it is important that country National Project Managers and National Data Managers review the files completely for any inconsistent or incorrect information. National Centres will have only a short amount of time to relay any data issues or concerns to Data Management contractors before preparations begin for the International Database release. Careful and timely review of these files are important to the quality and accuracy of your final Main Survey data.

9.4.14.   Follow the Preparation of the International Database

Soon following the final batch release of national, interim data files to National Centres, Data Management contractors will begin preparations for the International Database release. While specific details about the International Database are discussed in Chapter 10 of this manual, it is important for countries to observe these two key deliverables--the interim national database files and the International Database files-- during the Main Survey cycle before the public release of information.

The International Database, masked to maintain country anonymity, will include raw variables, questionnaire indices, as well as sampling and replicate weights. In brief, the International Database provides National Centres with the opportunity to review their national data with an international structure of variables names consistent across all countries.

Most important, the International Database contains a similar structure to the Public-Use files that are disseminated to the public at the end of the Main Survey. As such, National Centres are able to review their data earlier with this masked international structure, before the release of Main Survey data to the public. Further, National Centres may use data from the International Database release to begin writing national reports. As with any data delivery, a data file review period will follow the release of this information and National Centres will be required to carefully review their data in this format for any data issues or inconsistencies.

CHAPTER 10 – REVIEW AND REPORTING PHASE

10.1. Overview of Tasks

This phase mainly concerns review of data and indicators; consultation, and discussion with your PISA Governing Board (PGB) members; other national groups or committees; and the development, revision, and release of your national analyses.

During this phase, you will complete the following:

- Review International Databases and Prepare National Reports

- Analyse National Data

- Prepare for and Document Data Adjudication Process

- Prepare International Report and the Public Use Files

- Coordinate National Dissemination

10.2. Key Tasks during the Review and Reporting Phase

10.2.1.   Review International Databases and Prepare National Reports

Contractors, in consultation with NPMs, test developers, members of the Technical Advisory Group (TAG) and the OECD will agree on item treatments for cognitive and questionnaire data (e.g., national or international item deletions or recodes) and further refine proposed cognitive and questionnaire scales. Scaling will take place between May and June, once the first set of weights are available at the end of April 2019. Below is a proposed process for the international databases, using PISA 2015 as a reference.

- International Database 1 – Masked Country ID (June/July 2019): This database will include all raw variables, questionnaire indices, sampling, and replicate weights from the end of April, and plausible values. The international database is a set of individual, national files with an international structure of variable names consistent across all countries. Scripts or further instruction on merging these files will be provided to countries. Computer-based country variables will be consistent across all computer-based countries. Additionally, paper-based country variables will be consistent across all paper-based countries.

- International Database 2 – Masked Country ID (August/September 2019): This database will include all raw variables, questionnaire indices, sampling and replicate weights from end of May, and updated plausible values. The International Database 2 will follow the same

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structure as the International Database 1 and may incorporate data updates as a result of the International Database 1 review.

These databases should be used to assist in the drafting of national analyses. Note, however, that these two databases will be masked so you will only be able to identify your own country in this database. The OECD Secretariat, as part of its own dissemination strategy, will share identification information at the time the draft report is shared with countries.

10.2.2.   Analyse National Data

Similar to PISA 2015, PISA 2018 will also offer the PISA Data Explorer (PISA-DX), which is a Web-based application that can be accessed by users to conduct analysis of the PISA data from any remote location with an Internet connection. The PISA-DX can generate report-ready tables and graphics. Countries will be provided with a login ID to view the international variables as well as their own national variables (i.e., country-adapted or national additions that are numeric and categorical) within this preliminary PISA-DX.

The first version of the PISA-DX is expected to be available after the release of the first International Masked Database. The second version will be made available to countries after the release of the second International Masked Database. Release dates will be provided to countries during the Main Survey.

In addition, to assist countries in analysing their databases as they prepare their national reports, ETS will sponsor data analysis workshops for 2018 participating countries. These workshops will take place soon after data file and Data Explorer release dates.

10.2.3.   Prepare for and Document Data Adjudication Process

As an introduction to data adjudication, it may be useful to recall that the PISA 2018 Technical Standards were developed with four interrelated goals in mind:

- *Consistency*: Data should be collected in an equivalent fashion in all countries, using equivalent test materials. Comparable samples of each country's student population should perform under test conditions that are as similar as possible. Given consistent data collection (and sufficiently high response rates), test results are likely to be comparable across regions and countries. The test results in different countries will reflect differences in the performance of the students measured, and will not be caused by factors which are un-related to performance.

- *Precision*: Data collection and submission practices should leave as little room as possible for spurious variation or error. This holds for both systematic and random error sources, e.g. when the testing environment differs from one group of students to another, or when data entry procedures leave room for interpretation. An increase in precision relates directly to the quality of results one can expect: The more precise the data, the more powerful the (statistical) analyses, and the more trustworthy the results to be obtained.

- *Generalisability*: Data are collected from specific individuals, in a specific situation, and at a certain point in time. Individuals to be tested, test materials and tasks etc. should be selected in a way that will ensure that the conclusions reached from a given set of data do not simply reflect the setting in which the data were collected but hold for a variety of settings and are valid in the target population at large. Thus, collecting data from a representative sample of the population, for example, will lead to results that accurately reflect the level of literacy of fifteen-year-old students in a country.

- *Timeliness*: Consistency, precision and generalisability of the data can be obtained in a variety of ways. However, the tight timelines and budgets in PISA, as well as the sheer number of participating countries, preclude the option of developing and monitoring local solutions to be harmonised at a later stage in the project. Therefore, the standards specify one clear-cut path along which data collection and data submission should progress.

A general principle underlying the process of data adjudication is early identification and rectification of any data quality issues wherever possible. Note also that adjudication is an iterative process rather than an event, and proceeds country by country.

The PISA 2018 contractors monitor the implementation of data collection procedures by drawing from a range of sources such as data from your national profile on the PISA Portal and more specific quality monitoring procedures (e.g., PISA Quality Monitor reports and Main Survey Review Questionnaires). In addition, some of the standards are evaluated using information from the submitted data (e.g., coverage of the population, number of assessed students, school and student response rates, analysis of multiple marked data, and session timing).

The information collected for monitoring the standards is grouped into specific areas or roles as shown below. A database is used to collate information arising from the following sources:

- Management and administration of the group of international contractors,

- Analyses,

- Tests,

- Questionnaires,

- Translation and verification,

- Sampling,

- Field operations, and

- Quality monitoring.

In preparation for data adjudication, contractor staff members responsible for each area/role above consider the available quality assurance information for their area as it relates to specific standards.

These individual areas, which commonly cut across multiple standards, are then collated into the data adjudication database. Contractors' staff members collaborate with the OECD Secretariat and the TAG to address any identified areas of concern. Where appropriate, the NPM is contacted through either contractors or the OECD Secretariat to discuss any issues identified. Members of the TAG then draw on this information and draft a recommendation about the data. Once any remaining issues are clarified, the TAG makes its recommendation to the OECD Secretariat/PGB.

In previous surveys, the TAG has endorsed the adjudicated data set in the great majority of countries. In some instances, specific recommendations are made regarding the treatment or limitations of the data. Examples of recommendations include the following:

- Removing some data for a particular country, for example, the removal of data for schools whose student participation rate is below 25 percent;

- Rectifying action to be performed by the NPM, for example

  — In instances where school or student response rates do not meet the standards, providing additional evidence to demonstrate that there is no non-response bias; and

  — In instances where problems with coding procedures have been identified and deemed to affect the quality of the data, rescoring constructed-response items;

- Recommending that specific data not be published in some tables of the OECD report(s); and

- Requesting that the data not be included in the international database.

It is difficult to be more precise about outcomes since a wide range of scenarios is possible. Moreover, the data sources and standards need to be evaluated collectively since not reaching one single standard does not have the same implications as not reaching multiple standards.

Data adjudication is an ongoing process that assesses the suitability of a country's data for reporting purposes. **Final outcomes of adjudication are determined by the PGB by October 2019,** based upon advice and input from the contractors, the TAG, the sampling referee, and the OECD Secretariat.

10.2.4. Prepare International Report and the Public Use Files

The OECD Secretariat is responsible for the international report and is expected to release a first draft under embargo of this report for review by PGB members around **July-August 2019.** You are encouraged to work closely with your PGB member to review this draft, consulting with national committee groups and other partners where appropriate once this report is released.

Between the availability of the International Database 2 and the dissemination of results tentatively scheduled for early December 2019, Core A will prepare files for public release. Starting with the release of the International Database 2 in early September, Core A will work

with countries on suppression requests for variables affected by technical errors or issues of confidentiality issues that could jeopardise the anonymity of schools, students, and teachers. It is your responsibility to ensure that any requests for data suppression are communicated to Core A during this phase that is expected to last until early November 2019. In preparation for this work, Core A will notify countries and provide a variable list for country review and comment. Please note that requests made after this official phase may not be honoured by Core A Data Management due to the timeline.

At the time of the international dissemination expected for **early December 2019** when the OECD will release the international report, Core A will prepare the following two major deliverables:

- <u>Public use files (PUFs)</u>: The PUFs will be distributed in SPSS and SAS data file formats that will exclude national variables as well as international variables identified through the suppression requests by countries.

- <u>Public PISA Data Explorer Unmasked</u>: This version of the PISA Data Explorer will include international variables as well as trend data from previous cycles. Core A will collaborate with countries in order to adhere to any identified suppression requests by countries.

Please note that results are <u>still embargoed</u> until the official dissemination date. Take all necessary steps to ensure that there are no "leaks" of the results by putting appropriate measures in place concerning all individuals with whom you may consult about the report.

10.2.5.   Coordinate National Dissemination

It is recommended that you develop a national dissemination strategy that accounts for the international reporting timeline. To ensure that you get your national policy messages across to the appropriate groups and to secure adequate national media coverage, you may wish to release your national results at the same time as the international report, perhaps following up with more in-depth secondary analyses in the following year. On the other hand, it may be preferable to release your national report sometime after the OECD report, if this is likely to result in more successful dissemination of results in your national context.

The level of detail in your initial report is, of course, dictated by national priorities and constraints. Some countries produce a very short initial report that draws key findings from the initial international report; other countries undertake detailed analyses drawing on secondary data sources.

It is likely to be beneficial to use a multi-channelled dissemination strategy, and this may require the preparation of different types of materials for different target audiences.

APPENDIX A. THE PISA NATIONAL PROJECT MANAGER ROLES AND RESOURCES

Introduction

A National Project Manager (NPM) is required for each country participating in PISA. The NPM has overall responsibility for implementation of the project within the country, ensuring that tasks are carried out on schedule and in accordance with the specified international standards. Additionally, the NPM is responsible for working in liaison with the country's PISA Governing Board (PGB) member.

This appendix provides prospective PISA participants with a description of the scope of the NPM's duties and the national resources required to complete this work. These managers play a vital role in developing and validating the international assessment instruments and implementing the survey in accordance with all international standards to ensure that PISA results are of high quality.

Profile of NPM

The NPM is responsible for overseeing all national tasks related to the development and implementation of PISA throughout the entire cycle, so it is desirable for the position to be full time. It could be less than full time, however, depending on the availability of other support staff that may include a co-NPM, administrative assistant, information technology (IT) specialist, Data Manager, translator co-ordinator, coding specialist, and/or various subject area specialists. It is strongly recommended that an NPM work on the project at least half time, but year round, to ensure continuity of activities. It is highly desirable that the person appointed as the NPM remain throughout the entire PISA cycle.

It is essential for the NPM to have:

- A high level of oral and written communication skills in English (all meetings and communications with the international contractors are in English)

- Previous experience in planning, organising, and conducting large-scale surveys

- Skill in identifying, selecting, and managing a team of project staff with the experience and capability to multi-task

- Familiarity with:

  — Statistics

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- — Sampling

- — Survey quality control and data collection procedures

- — Data file structures, data management, data processing procedures, and data analysis and reporting

- Experience with Microsoft applications such as Word and Excel

It may be acceptable for a qualified candidate to have familiarity with only some of these areas if members of the national team collectively possess the required expertise:

- Ability to oversee translation, adaptation, and verification activities; it may be acceptable for a qualified candidate to have limited experience in translating/adapting survey materials if members of the national team possess the required expertise

- Sufficient knowledge of, and experience with, the overall PISA design, processes, and procedures to represent the country at international meetings where aspects of the project will be discussed

- Knowledge of, and experience dealing with, government agencies, school principals, parents, and teachers within their own countries

- It is desirable that the person also has:

- Previous work experience in an education system, educational assessment, and survey implementation

- Familiarity with relational databases (such as Microsoft Access) and statistical packages such as SPSS or SAS

The PISA Survey Period

PISA 2018 will be implemented in a five-year cycle that involves instrument development, two data collections (Field Trial and the Main Survey), analysis, and dissemination. The proposed sample size for 2018 has not been approved. But to give an indication of possible sample size, in PISA 2015, the Field Trial involved around 900–1950 students and the Main Survey involved 5250-6300 students. An overview of the key activities of the PISA 2018 survey period is presented below.

- 2015: Frameworks review and item and questionnaire development and review (submission of stimuli and test questions, review of proposed instruments, etc.)

- 2016: Preparation for Field Trial data collection (sampling, school materials, translation, adaptation, verification, testing of Student Delivery System, etc.)

- 2017: Final preparations for and implementation of the Field Trial (scoring of open-constructed response questions, data preparation and submission; data analysis, and preparations for the Main Survey, etc.)

- 2018: Preparation for and implementation of Main Survey data collection (sampling, school materials, review of national versions of instruments, verification, testing of Student Delivery System, scoring of open-constructed response questions, data preparation and submission, data analysis, etc.)

- 2019: Analysis of Main Survey results (review of national databases, and preparation of reports and dissemination products, etc.)

Required Resources – PISA 'Core' and 'Optional' Components

The core components of PISA are tests and questionnaires administered to students and a School Questionnaire administered to participating schools. International options, which may include additional domains or questionnaires, may be implemented at the international level. In the past, these have ranged from additional domains such as Financial Literacy to additional questionnaires such as the ICT Familiarity Questionnaire, the Educational Career Questionnaire, a Teacher Questionnaire, and a Parent Questionnaire.

In addition, countries may want to implement national components that may require a prior agreement or contract with the international contractors. Countries implementing optional components or variations, of course, will require additional national resources.

NPMs are expected to have appropriate levels of financial and human resources to be able to perform their tasks in accordance with the international standards and guidelines. An estimate of the staffing and material resources is described below.

Human Resources

National Centre Staff

Each participating country must establish a National Centre that will be responsible for managing the survey implementation. At National Centres, the work associated with PISA will require at least the equivalent of three to four full-time staff members on average over the course of the project, plus clerical support.

If the NPM is working full time on PISA and has expertise with survey design and data management and analysis, the second full-time equivalent staff member could be a combination of an administrative officer (possibly half time), a Data Manager (one-quarter time) who manages all data-related tasks, and an IT co-ordinator (one-quarter time) if your country is participating in the PISA 2018 computer-based mode. Translation activities will require close supervision from March 2016 until January 2017 and, to a lesser extent, from August to November 2017. At times, there will be need for additional administrative support.

Committee/Expert Groups

PISA assessments comprise materials for three recurring domains: Reading, Mathematical, and Scientific Literacy. In addition, Global Competence (skills needed to understand and function in an interdependent world) is planned as a core domain in PISA 2018. Within each PISA survey period, new item development is focused on one of these recurring domains. The focus area for PISA 2018 is Reading Literacy. Additionally, item development will occur for the new CBA domain of Global Competence. Therefore, representative groups of national experts experienced with computer-based assessments (CBAs) in particular should be organised to contribute to and review the development of PISA 2018 assessment items.

Countries may consider establishing national advisory committees composed of leading national experts in, for example, survey research and education management. These individuals could offer advice for the project and ensure that national views are represented.

The PISA survey involves the administration of school and student questionnaires and possibly optional questionnaires, which need to be reviewed by national experts.

Many countries rely on input from national advisory committees and expert groups to review progress, procedures, and results throughout the project. If applicable, these groups should meet on a regular basis, and these costs should be factored into the national PISA budget.

Translators and Reconcilers/Adaptors

All test and questionnaire materials are prepared by the international contractors in English and French. For translation into other languages, PISA Standards require a process of double independent translation followed by reconciliation to merge the independent versions. This means National Centres will need a minimum of three translators for these procedures. In addition, translation and adaptation of manuals and coding guides are required.

The translators producing the two independent translations should have a professional background with adequate qualifications (including, but not limited to, a master's degree in translation, translation science, or linguistics) and/or at least five years' experience. The reconciler, who merges the two translations, should combine adequate qualifications with specific experience in translating/adapting survey materials. In-depth understanding of the main 2018 domain (Reading Literacy) and familiarity with psychometrics are desirable. Note that if one translator translates from English and the second from French into the language of instruction, then the reconciler should be proficient in both English and French.

For versions that are adapted from one of the source versions, a base version, or a verified borrowed version, the adaptor (the person in charge of adapting the material) should have the same profile as reconcilers, i.e., adequate qualification combined with experience in adapting survey material and in-depth understanding of the PISA 2018 main domain.

The NPM is responsible for the following translation and adaptation activities:

- Monitor and co-ordinate the translation and adaptation of instruments and supporting materials in accordance with international specifications

- Document proposed changes to instruments and supporting materials for further verification

- Communicate with the contractors on translation and adaptation issues

- Organise translation/adaptation of all training and operational manuals as needed

Information Technology (IT)

As PISA is implemented as a computer-based survey, in most countries, IT personnel are needed to manage PISA's IT-related activities in the country and the implementation of the survey within schools. This team should be knowledgeable about IT and familiar with survey operations in its country, the IT infrastructure used within schools, and the challenges of using school computers for testing. IT work will be concentrated in the periods of development as well as data collection, times during which the IT team should work full time on PISA. The work will involve testing the delivery systems of student tests and questionnaires, testing and monitoring the data collection in schools, duplication, and distribution of PISA software, and collection and management of data returned from schools.

An IT Co-ordinator should have experience in troubleshooting hardware and networking problems; resolving Web-based and Web service problems with nationally used operating systems; extracting and transmitting data from computers; maintaining data and communications security in an Internet environment; training others on computers; Internet usage; and conducting survey operations.

It is highly recommended that the same Data Manager and IT Co-ordinator work during both the Field Trial and Main Survey preparations, data collections, and processing.

Sampling

The NPM is responsible for monitoring or implementing the following sampling activities for both the Field Trial and Main Survey:

- Determine what the national requirements are for implementing international options and/or national options, including oversampling, which have an impact on school and/or student sampling

- Develop a comprehensive file of schools that includes the entire PISA student population

- Work closely with Core C Sampling to ensure that the sample design meets all national requirements

- Monitor the school sample selection process to ensure there are no unexpected issues with the final school sample

- Obtain lists of PISA-eligible students from each participating school and ensure the lists are of high quality

- Use the Core C Sampling-provided within-school sampling software (KeyQuest) to select the student sample in each school

- When necessary for the Main Survey, conduct a non-response bias analysis in accordance with specifications provided by Core C Sampling

- Respond to inquiries from Core C Sampling and Core A Data Management staff concerning sampling issues after submission of the assessment data

Test Administrators/School Associates

Test administrators will be recruited to administer the assessment at participating schools for both the Field Trial and the Main Survey. They are preferably external to the schools in which they will do PISA work. The PISA Standards require that all Test Administrators are trained in person. They also should be comfortable working with computers if your country is administering PISA electronically.

The number of required Test Administrators will vary depending on several factors such as: the sample size in your country, the length of your data collection period, the location of the schools, the number of school computers and/or external laptops that are available (CBA countries), and other national and local considerations.

School Co-ordinators

A staff member from each sampled school will need to be recruited as a School Co-ordinator. The work of the School Co-ordinator involves collecting and recording information about the target population within the school, disseminating information to the school community, and assisting the Test Administrator in organising the assessment activity. As noted above, in some countries this role is part of the responsibility of the School Associate, who serves as both School Co-ordinator and Test Administrator.

Data Managers and Processing Staff

A National Data Manager will be responsible for managing all the data-related activities within the country for both the Field Trial and Main Survey. In particular, the Data Manager will be expected to attend and one KQ training prior to the Field Trial (November 2016) and two training sessions – one prior to the Field Trial in February 2017 and one prior to the Main Survey in February 2018.

Additionally, a number of data-processing operations that occur during the PISA survey period will require additional staffing. For example:

- Coders of constructed-response (i.e., open-ended) items

- Coders of occupational response data

- Data entry staff (PBA countries only)

The NPM is responsible for the following data file preparation activities:

- Communicate data entry procedures and supervise data entry operations

- Conduct validation checks of data from the survey instruments in accordance with PISA guidelines

- Organise the dispatch of data files to the contractors

- Respond to data queries in a timely fashion

Facilities

When a National Centre is established, it is important to ensure that the following facilities are available to the NPM and the National Centre staff:

- PCs running Windows with Microsoft Office applications. Two applications are especially important for data processing – Excel and Word

- Access to a reliable, high-bandwidth Internet connection and email facilities. Nearly all communication between the National Centre and international contractors occurs via email. Thus, access to reliable email facilities is highly important. The international contractors maintain a secure website that contains key dates, documents, and survey tools. Access to this site is essential for NPMs to be kept up to date and involved with the progress of the survey

- Secure space for conducting the Field Trial and Main Survey coding operations

- Secure space for the storage of equipment and materials at all times

Production of Materials

The following tasks regarding materials are to be undertaken in preparation for both the Field Trial and Main Survey:

- Finalise materials: For CBA countries, review and testing of the Student Delivery System. For paper-based assessment (PBA) countries, review and printing of assessment materials and questionnaires

- Dispatch materials: Dispatch of manuals, associated materials, and USBs with the Student Delivery System (CBA countries) or paper booklets (PBA countries) to test administrators and schools.

Dissemination

An important strategy in raising the awareness of PISA is the dissemination of promotional material and reporting back the results of the surveys. This could involve:

- Production of local promotional and publicity materials

- Production of national reports of the survey results (Main Survey only). It is recommended that a national dissemination strategy be developed that takes the international reporting timeline into account (the final international report is due to be released in December 2019). Some countries aim to release their national reports at the same time as the international report

Meeting and Training Attendance

NPM meetings: It is required that NPMs and other key national staff attend international meetings in person up to four times during the survey period. A tentative schedule of these meetings is as follows:

- March 2016

- November 2016

- November 2017

- June-July 2019

Training sessions: NPMs and other key national staff are expected to attend training sessions, held twice during the five-year survey period:

- Field Trial International Training in January 2017 (detailed item-by-item coding and data management)

- Main Survey International Training in January 2018 (targeted coding, KQ, and data management)

Webinars: In addition to the in-person meetings, there may be multiple webinars throughout the cycle to cover specific issues related to the project. It is required that NPMs and other key national staff participate in these webinars.

APPENDIX B. CONFIDENTIALITY AGREEMENT

OECD/PISA 2018 Confidentiality Agreement[9]

Name

Phone number _____

Email _____

Address _____

_____

_____

I, _____ agree in accepting employment as a Test Coder for the OECD/PISA2018 project being managed by <National Centre>:

1. That I will assess objectively and impartially in accordance with the advice and procedures provided by <National Centre>;

2. That I will immediately inform <National Centre> if I am or may be closely related to or associated with any student whose work I might be asked to mark;

3. That I will observe confidentiality and will not disclose or divulge by any means or in any way to any person not authorised to receive them:

    a. Any results obtained by candidates or schools;

    b. The content of any PISA test form—and computer equivalent;

    c. The content of any script from the test forms or questionnaires—and equivalent;

    d. The name of any student whose work I have marked; and

    e. Details of the marking criteria used in the project.

Signature_____   Date _____

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[9] Adapt for other project staff as appropriate.

APPENDIX C. PISA ACRONYMS AND GLOSSARY

List of Acronyms

Acronym	Definition
ACER	Australian Council for Educational Research
CAS	Coding Guide Adaptation Spreadsheet
CB	Computer-Based
CBA	Computer-Based Assessment
CCC	Country 3-letter identification variable
CNT	Country numeric identification variable
CQ	Coder Query
DIPF	Deutsches Institut für Internationale Paedagogische Forschung (German Institute for International Educational Research)
DME	Data Management Expert software
DMM	Data Management Manual
ECQ	Educational Career Questionnaire
ETS	Educational Testing Service
FAQ	Frequently Asked Questions
FC	Final Check
FT	Field Trial
FL	Financial Literacy
FTE	Free Text Entry response
FTP	File Transfer Protocol
GC	Global Competence
GEG	Global Competence Expert Group

ICQ	ICT Familiarity Questionnaire
ICT	Information and Communication Technology
ID	Identification (number)
ISCED	International Standard Classification of Education
IPT	Initial Parameters Table
IRT	Item Response Theory
ISCO	International Standard Classification of Occupations
ITC	Information Technology Co-ordinator
KQ	KeyQuest
LQA	Linguistic Quality Assurance
LQC	Linguistic Quality Control
MAF	Materials Adaptation Form
MEG	Mathematics Expert Group
MS	Main Survey
NC	National Centre
NDM	National Data Manager
NPM	National Project Manager
NRBA	Non-response bias analysis
NSM	National Sampling Manager
OECD	Organisation for Economic Co-operation and Development
OECS	Open-Ended Coding System
OERS	Open-Ended Reporting System
OLT	Open Language Tool
PB	Paper-Based
PBA	Paper-Based Assessment
PDF	Portable Document Format

PGB	PISA Governing Board
PISA	Programme for International Student Assessment
PQ	Parent Questionnaire
PQM	PISA Quality Monitor
PVS	Preferred Verification Schedule
QAS	Questionnaire Adaptation Spreadsheet
QAT	Questionnaire Authoring Tool
QEG	Questionnaire Expert Group
REG	Reading Expert Group
SA	School Associate
SAF	Session Attendance Form
SC	School Co-ordinator
ScQ	School Questionnaire
SDS	Student Delivery System
SEG	Science Expert Group
SEN	Special Educational Needs
SFKQ	Sampling Form for KeyQuest
SMAF	School-level Materials Adaptation From
SMEG	Subject Matter Expert Groups
SPT	Study Programme Table
SRF	Session Report Form
STF	Student Tracking Form
StQ	Student Questionnaire
TA	Test Administrator
TAG	Technical Advisory Group
TAS	Test Adaptation Spreadsheet

TCS	Target Cluster Size
TP	Translation Plan
TQ	Teacher Questionnaire
UH	Une Heure (One Hour)
WSSM	Within-School Sampling Manual
XLIFF	XML Localisation Interchange File Format
XML	Extensible Markup Language

Glossary

Term	Definition/Explanation
Accommodation	A change to how a test is administered to a student with special educational needs (SEN) or a change in how a SEN student communicates a response to a test item. PISA allows only limited accommodations, which must be approved in consultation with international contractors.
Adaptation	Changes to test instruments and manuals proposed by a National Centre during the translation and adaptation process. Adaptations need to be in line with the Translation and Adaptation Guidelines and need to be documented. For questionnaires and manuals, they need to be agreed upon by the international contractors
Adjudicated entity	A country, geographic or economic region, or similarly defined population for which the international contractor fully implements quality assurance and quality control mechanisms and endorses, or not, the publication of separate PISA results
Agreed-upon procedures	Procedures that are specified in the PISA operations manuals and Technical Standards, or variations that are agreed upon between the National Project Manager and the international contractors
Agreed-upon timelines	Timelines that are specified for each PISA task, or variations agreed upon between the National Project Manager and the international contractors
Archive	An electronic or hard-copy store of materials to be used for future reference
Australian Council for Educational Research (ACER)	International contractor on the Core C Sampling team that is responsible for KeyQuest in PISA 2018
Booklet shell	The booklet parts common to all test booklets (including the cover pages, General Directions section, Formula Page, Acknowledgments, and any other common part for the particular cycle)
cApStAn	International contractor for Core D Translation Verification, responsible for linguistic quality control and equivalence checks of the PISA 2018 instruments
Closed-response test item	An item with a restricted pool of responses that are coded with little or no human judgement. When implemented as a computer-based item, these are automatically scored.
Cluster	A group of specified units of test items. A number of clusters are put together to form a booklet (PBA) or testlet (CBA) according to the specified test design
Coder	A person qualified and trained to examine and classify the student responses to open-response test items in PISA (for both the cognitive and the questionnaire parts)

Coder query (CQ)	A question from a National Centre about a coding issue for a specific response. Coding queries are directed to the International Core A Contractor for advice
Codes	The set of separate student response categories defined for each test item
Coding design	A formal description of the coding process. A National Centre can adopt the Field Trial and Main Survey coding designs provided by the international contractors in the Coding Procedures and Guidelines documents or, if necessary, can propose alternatives, which must be agreed upon before use.
Cognitive items	The test questions in the "cognitive" part of PISA (not the questionnaire items)
Complex multiple choice items	Complex multiple-choice items require the following: i) responses to a series of related "Yes/No" questions that are treated for scoring as a single item; ii) selection of more than one response from a list, iii) completion of a sentence by selecting drop-down choices to fill multiple blanks; or iv) "drag and drop" responses, allowing students to move elements on screen to complete a task of matching, ordering, or categorising
Computer-Based Assessment (CBA)	Assessment instruments that are delivered via the computer. A country implementing PISA as a computer-based assessment is often referred to as a CBA country
Constructed-response items	Items for which students must produce their own response (as opposed to selecting from given optional responses) that may range from a phrase to a short paragraph (e.g., two to four sentences of explanation). Usually there is a variety of possible responses that may include drawing or graphing
Country 3-letter identification variable (CCC)	3-letter ISO (International Organisation for Standardisation) Country code by which international contractors refer to countries
Country numeric identification variable (CNT)	3-Digit ISO (International Organisation for Standardisation) Country code for PISA participants. For most of countries, this ISO code is based on the ISO 3166, which is the international standard for country codes and codes for their subdivisions
Data adjudication	The process of checks and cross-checks undertaken by the international contractors and the Technical Advisory Group in order to support the decision about which data can be included in the main data set
Data Management Expert software (DME)	Software developed specifically for PISA for the entry, editing, and management of all response and coded data. The software is installed and operates on a computer system within the National Centre and is managed by the National Data Manager
Data Management Manual (DMM)	A document describing the usage of the DME software and the operational procedures for the entry, import; and export of data through the software. There are separate documents for computer- and paper-based countries
Data validity checks	A series of checks done by the National Centre prior to data submission to guarantee the validity of the data from their perspective
Deutsches Institut für	International contractor German Institute for International Educational

Internationale Paedagogische Forschung (DIPF)	Research on the Core A team that is responsible for development of the PISA 2018 questionnaire items
Difficulty	The level of difficulty of a test question or questionnaire item. It expresses the proportion or percentage of students who answered the item correctly
Dispatch	A delivery performed by the international contractors of materials related to PISA, usually in electronic form
Domain	An area of assessment within the PISA study. The three standard domains are Reading, Mathematics, and Science. PISA 2018 will also include Global Competence as the innovative domain
Educational Career Questionnaire (ECQ)	An international option offered in 2018 that covers topics on individualised educational pathways. A special focus lies on the amount, content, and conditions of current and earlier learning opportunities. This questionnaire is offered only as a computer-based instrument
Educational Testing Service (ETS)	International contractor for Core A responsible of the PISA 2018 design, development, and implementation
Excluded students	The sampling standards permit countries to exclude up to a total of 5% of the PISA relevant population. If students with special educational needs meet specific criteria specified in the School Co-ordinator's Manual (or School Associate's Manual), they may be excluded from participating in PISA
Field Trial (FT)	First period of data collection. The Field Trial is conducted in order to validate and optimise the PISA test and processes. All aspects of the survey are reviewed both nationally and internationally after the Field Trial. Recommended adaptations and changes are then made for the Main Survey
File transfer protocol (FTP) site	Secure Internet site used for transferring large data files
Final check (FC)	Performed after the verification of the translation and adaptation to record whether all verifier interventions requiring follow up were correctly and consistently addressed. The final check is done for both the cognitive and questionnaire instruments
Follow-up session	A second PISA test session that must be held if, for some reason, the absence rate was too high
Framework	A document that provides a definition of the domain(s) of study to be assessed, provides a description of the approach to assessment, and provides a blueprint of what the assessment should cover
Free text entry response (FTE)	A response that allows the respondent to enter alphanumeric text characters into the computer for CBA countries. It implies typing the characters on a keyboard
Global Competence	The knowledge and understanding that we learn, work, and live in an international, interconnected, and interdependent world. It involves the capacity to leverage that gained knowledge and understanding

	to inform our attitudes and behaviours, individually and alongside others, when navigating, interacting, communicating, working and participating in a variety of contexts, which can often be outside our usual environment. It values diversity, promotes effective participation in society and in international forums, and fosters the capability of people, as reflective individuals, to think critically about global matters and interact positively
Global Competence Expert Group (GEG)	A group of experts that contribute to the development of the assessment frameworks and instruments for Global Competence. The GEG assists the international contractors in linking PISA's policy objectives with substantive and technical expertise
ICT Familiarity Questionnaire (ICQ)	An international option offered in 2018 that covers topics aimed at exploring students' ICT activities and domain-specific attitudes. This questionnaire is offered only as a computer-based instrument
International contractors	The organisations that, as a group, are in charge of the development of the test instruments, questionnaires, and the implementation of PISA
International option	An element of the international PISA assessment/questionnaires that a National Centre can choose to participate in
International Standard Classification of Education (ISCED)	A standard framework used to categorise and report cross-nationally comparable education statistics. A common scheduled used to compare education systems across countries. As national education systems vary in terms of structure and curricular content, it can be difficult to benchmark performance across countries over time or monitor progress toward national and international goals. In order to understand and properly interpret the inputs, processes, and outcomes of education systems from a global perspective, it is vital to ensure that data are comparable. This can be done by applying the International Standard Classification of Education (ISCED)
International Standard Classification of Occupations (ISCO)	An International Labour Organisation (ILO) classification structure for organising information on labour and jobs. It as a tool for organising jobs into a clearly defined set of groups according to the tasks and duties undertaken in the job. It is intended for use in statistical applications and in a variety of client oriented applications
Item	A question within the PISA cognitive instruments or questionnaires
Item ID	An item-specific code used to identify a test question, e.g., CR420Q02
Item pool	Group of items. For example, the Field Trial item pool consists of all items to be used in the Field Trial
Item response theory (IRT)	Paradigm used in PISA for the analysis and scoring of cognitive tests and questionnaires. Unlike simpler alternatives for creating scales evaluating test and questionnaire responses, it does not assume that each item is equally difficult
KeyQuest (KQ)	Software developed specifically for the PISA project. The software assists with within-school sampling, student/teacher tracking, and data submission practices that meet the PISA 2018 Technical Standards

Language distribution	The languages spoken within a country and the proportion of the population of 15-year-olds for whom each language is the language of instruction. The decision about testing languages is based upon the language distribution in a country
Layout	Part of graphic design that deals in the arrangement of visual elements on an item page
Link(ing) item	An item that appeared in exactly the same format in the previous survey administration period(s) of PISA and is used to make possible comparisons of the results from one cycle to the next. Also referred to as trend item.
Local examples of student responses	Item responses used by a National Centre during coder training that come directly from students within that country, that is, real student responses
Main Survey (MS)	Second period of data collection
Materials Adaptation Form (MAF)	The form used by the National Centre and the international contractor for survey operations to track the progress of school-level material adaptation and review
Mathematics Expert Group (MEG)	A group of mathematics experts that contributes to the development of the assessment frameworks and instruments. The MEG assists the international contractors in linking PISA's policy objectives with substantive and technical expertise.
Multiple choice test item or question	A test question that requires respondents to select the best possible answer (or answers) from a set of options
Multiple coding	Process whereby a subset of responses are recoded (i.e., coded multiple times) by different coders. This is part of PISA's inter-coder reliability checks. See also single coding
National Centre (NC)	The centre responsible for the implementation of PISA in a country. The NC is managed by a National Project Manager
National options	Additional elements of the test or questionnaires that a National Centre can develop and implement subject to the international contractors' approval. These can range from additional instruments to special sampling options. If additional instruments, the national option is always administered after the main test. Upon review, some national options may result in a separate national option contract
National Data Manager (NDM)	The National Data Manager will be responsible for the day-to-day data management tasks within the country
National Project Manager (NPM)	The manager of a National Centre who oversees the implementation of PISA in a country
Occupational response data	The data from the questionnaires that derive from the responses to the questions about work/occupations. These are later coded according to the International Standard Classification of Occupation (ISCO)
OECD Secretariat (also referred to as	The OECD body that oversees and monitors the implementation of PISA by

Secretariat)	the international contractors, on behalf of the PISA Governing Board
Open Language Tool (OLT)	Computer-aided translation (CAT) tool used to edit the XLIFF files used in CBA
Open-Ended Coding System (OECS)	The software system used to code computer-based open-ended responses for CBA countries
Open-Ended Reporting System (OERS)	The software system used to code paper-based open-ended responses for PBA countries
Open-ended questionnaire items	The questionnaire items for which possible responses are not pre-defined
Open-ended test items	The constructed-response test items for which possible responses are not pre-defined for the respondent
Organisation for Economic Co-operation and Development (OECD)	The OECD is an international economic organisation of 34 countries, founded in 1961. The mission of the OECD is to promote policies that will improve the economic and social well-being of people around the world. The OECD provides a forum in which governments can work together to share experiences and seek solutions to common problems
Pagination	The relationship between layout and page numbering
Paper-Based Assessment (PBA)	Assessment instruments that are delivered in paper-and-pencil form. A country implementing PISA as a paper-based assessment is often referred to as a PBA country
Pearson	International contractor (Core B) responsible for the PISA 2018 frameworks
PISA Assessment Framework	A document that defines the domain to be assessed, describes the breadth of each of the domains, and the sub-areas and skills associated with each, and describes the approach to assessment. This document is published by the OECD
PISA defined target population	All PISA-eligible students in the schools that are listed on the school sampling frame. That is, the PISA desired population minus excluded schools and their students
PISA desired target population	The PISA target population that provides the most exhaustive coverage of PISA-eligible students in the participating economy as is feasible
PISA-eligible students	Students who are in the PISA target population
PISA Governing Board (PGB)	The PISA Governing Board is composed of representatives of OECD member countries and PISA associates (associates are economies that are not OECD members but have membership rights and obligations in regard to specific OECD bodies and programmes). Guided by the OECD's education objectives, the Board determines the policy priorities for PISA and makes sure they are respected during the implementation of each PISA survey

PISA operations manuals	Manuals provided by the international contractors as follows: ● National Project Manager Manual ● School-level Materials (e.g. Test Administrator's Manual). ● School Sampling Preparations Manual ● Within-School Sampling Manual ● Data Management Manual ● Student Delivery System Manual ● All other key documents referenced within the National Project Manager Manual The preparation of the PISA operations manuals will be carried out by the international contractors and will describe procedures developed by the international contractors. The manuals will be prepared following consultation with participating countries/economies, the OECD Secretariat, the Technical Advisory Group, and other stakeholders
PISA Participant	An administration centre, commonly called a National Centre, that is managed by a person or persons, commonly called a National Project Manager, who is/are responsible for administering PISA in the country. The National Project Manager must be authorised to communicate with the international contractors on all operational matters relating to the adjudicated entities for which a National Project Manager is responsible
PISA Portal	The PISA 2018 website often referred to as "portal." It can be accessed through the following address: http://pisa.ets.org/portal. This website is one of the principal means of international contractor communication with National Centres and contains the source versions of instruments, manuals, and other documents and information relating to National Centres
PISA Quality Monitor (PQM)	A person nominated by a National Project Manager and employed by the Core A international contractor for survey operations to monitor test administration quality in an adjudicated entity
PISA school-level materials	Materials provided by the international contractors describing the procedures to carry out the survey in schools: ● Test Administrator's Manual ● School Co-ordinator's Manual ● School Associate's Manual ● Test Administration Scripts ● Forms, including Session Report Form, Student Tracking Form, and Session Attendance Forms
PISA target population	Students aged between 15 years and 3 (completed) months and 16 years and 2 (completed) months at the beginning of the testing period, attending educational institutions located within the adjudicated entity, and in grade 7 or higher. The age range of the population may vary up to one month, either older or younger, but the age range must remain 12 months in length. That is, the population can be as young as between 15 years and 2 completed months and 16 years and 1 (completed) month at the beginning of the testing period; or as old as between 15 years and 4 (completed) months and 16 years and 3 (completed) months at the beginning of the testing period
PISA Technical	The set of Standards related to PISA quality assurance measures. These are

Standards	published by the OECD
Portable Document Format (PDF)	A file format with a ".pdf" extension
Preferred Verification Schedule (PVS)	A form for negotiating the country-specific timeline for the verification of the questionnaires and cognitive items.
Programme for International Student Assessment (PISA)	PISA is a triennial international survey that aims to evaluate education systems worldwide by testing the skills and knowledge of 15-year-old students
Quality	PISA has developed three inter-related aspects of quality: quality control, quality monitoring, and quality assurance. Quality control measures are used to ensure that data conform to the specifications in the Technical Standards. Quality monitoring procedures are used to evaluate whether Technical Standards have been achieved as planned. One quality monitoring procedure is PQM observation of test session activities during the Main Survey. Quality assurance is achieved during the data adjudication process, whereby issues that may compromise the quality of the data are reviewed and corrective actions are taken, if appropriate
Questionnaire Adaptation Spreadsheet (QAS)	The QAS is an Excel spreadsheet where all questionnaire items are listed. The QAS is used to: ● Negotiate and document national adaptations to existing translations of trend questions ● Negotiate and document national adaptations to new questions ● Facilitate and document the international verification of adapted questionnaires ● Facilitate and document recoding of national data for the purpose of data management
Questionnaire Authoring Tool (QAT)	The QAT is an online tool used to adapt the master questionnaires (English) and to produce national versions of the PISA 2018 computer-based questionnaires
Questionnaire Expert Group (QEG)	A group of experts that contribute to the development of the questionnaires. The QEG assists the international contractors in linking PISA's policy objectives with substantive and technical expertise
Questionnaire items	The questions in the Student and School Questionnaires
Reading Expert Group (REG)	A group of Reading experts that contribute to the development of the assessment frameworks and instruments. The REG assists the international contractors in linking PISA's policy objectives with substantive and technical expertise
Response option	One of the possible responses in a multiple choice item, indicated by a letter A, B, C, etc.
Sample	The group of students selected to take part in PISA
Sampling form for	The sampling form for KQ is based on the ST5 FT Form and the ST11 MS Form. These forms are school-level Excel files that contain all the sampled

KeyQuest (SFKQ)	and replacement schools, supplemented with all the within-school sampling parameters needed by KQ to do the within-school sampling. Once this form is agreed upon and imported into KQ, the ST5/ST11 form becomes known as SFKQ
School Associate (SA)	A person who is employed at a school who both co-ordinates the logistics for scheduling the test and also administers the test to students
School Co-ordinator (SC)	A person who is employed at a school who communicates with the National Centre and the Test Administrator about the logistics of scheduling the test
School-level exclusions	Exclusion of schools from the sampling frame because: ● of geographical inaccessibility (but not part of a region that is omitted from the PISA desired target population), ● administration of PISA within the school would not be feasible, ● all students in the school would be within-school exclusions, or of other reasons as agreed upon
School-level Materials Adaptation Form (SMAF)	An Excel form used to collect information about a country's survey operations timeline, quality control procedures, and other data needed for completing the school-materials adaptation process.
School Questionnaire (ScQ)	A questionnaire for school principals. It collects information about the school context information, the school management, the teaching staff, the assessment and evaluation, the targeted group and the school climate. It's a computer- and paper-based questionnaire
Science Expert Group (SEG)	A group of Science experts that contributes to the development of the assessment frameworks and instruments. The SEG assists the international contractors in linking PISA's policy objectives with substantive and technical expertise.
Session Attendance Form (SAF)	A form produced by KQ that is used to record the attendance of students at the test session
Session code	A code used to identify test and questionnaire sessions
Session Report Form (SRF)	A form used to document the timing of the session and any problems that may have arisen
Single coding	Process whereby responses are coded (i.e., classified) according to the coding guides. See also multiple coding
Simple multiple-choice	Items requiring the following: i) selection of a single response from four options; or ii) selection of a "hot spot," an answer that is a selectable element within a graphic or text
Source or master version(s)	The version(s) of a document released by the international contractors for translation and adaptation by the National Centre. These may refer to English versions or English and French versions, depending on the material
Special educational needs (SEN)	Students with special educational needs include those with functional disabilities, cognitive, behavioural, or limited test language proficiency. It also includes students for whom there are no test materials available in their language of instruction. Students with special educational needs may be

	excluded from the assessment depending on the guidelines provided by the international contractors
Standard	A statement related to a process within PISA that provides a basis for comparison. A National Centre must comply with all relevant PISA Standards to ensure that its data are included in the main international data set
Stimulus	The text, tables, pictures, or diagrams that students use to answer the test questions but are not part of the questions themselves
Stratum	A division within an educational system, such as rural/urban, used in school sampling
Student Delivery System (SDS)	The software that delivers the PISA assessments and questionnaires to students in schools for CBA countries. Typically runs from USB drives
Subject Matter Expert Groups (SMEG)	A collective term, of which REG, MEG, QEG, GEG, and SEG are specific instances. The TAG may also be referred to as SMEG. See individual entries
Study Programme Table (SPT)	A file used by KQ that lists the study programmes and their associated grades and which covers the programs in all PISA schools in the country
Student Questionnaire (StQ)	A questionnaire for students. It collects information about the student's family, home, school, school schedule and learning time, view on reading, etc. It is either a computer- or paper-based questionnaire
Student Tracking Form (STF)	A form produced by KQ that lists the sampled students at a school, student response rate, student assessment rate, and student absence rate.
Target cluster size (TCS)	The number of students that are to be sampled from schools where not all students are to be included in the sample
Target language	The language into which the source version of material is being translated
Technical Advisory Group (TAG)	The aim of the Technical Advisory Group is to ensure the technical quality of the PISA programme. It has a permanent role across survey cycles and includes those who have a leading operational role in the project
Technical Standard	A PISA Standard that is subject to quality assurance measures
Test Adaptation Spreadsheet (TAS)	The Test Adaptation Spreadsheet is a form in which adaptations to assessment units are documented. Adaptations will be checked for compliance with the PISA Translation and Adaptation Guidelines by international verifiers, and verifiers' recommendations will be vetted by the translation referee
Test Administrator (TA)	A person hired by the National Centre to administer the test in schools
Test instruments	Test forms, questionnaires, and coding guides (i.e., the instruments used in data collection)
TestFlow	The components of the SDS are controlled by a TestFlow for CBA countries. A TestFlow includes the screens for logging into the SDS, selecting

	languages (if necessary), and moving among the components of the student assessments and questionnaires
Test period	The period of time during which data is collected. The test period cannot exceed 6 weeks and is different from the test window (also referred to as "data collection period")
Test window	The 3-month period for which a set of population birthdates is valid for testing
Testlet	A testlet is a number of clusters that are put together according to the specified design and used to represent a cognitive instrument that is administered as a computer-based form
'Track changes' mode	A mode within Microsoft Word where the changes made to a document over time remain visible
Translation Plan (TP)	Documentation of all the processes that are intended to be used for all activities related to translation and languages
Translation reconciler	The translator who compares and merges the two separate versions of translated material in order to ensure linguistic comparability with source versions
Trend item	An item that appeared in exactly the same format in the previous survey administration period(s) of PISA and is used to make possible comparisons in the results from one cycle to the next. Also referred to as a link(ing) item
UH form	"Une heure" (one hour) form and short questionnaire for students with special educational needs. Countries may select this as one of the international options.
Unit	A related set of stimuli, one or more items (i.e., questions), and response coding guides together. A cluster is formed from the stimuli and questions from a number of selected units and forms an element of the test design
Verification	A linguistic check of test instruments performed by the international contractors
Verification co-ordinator	The organisation in charge of the verification process. For all testing materials, and questionnaires, the verification co-ordinator is Core D Translation Verification (cApStAn)
Verifier	A person qualified and trained to verify equivalency between the source and the target versions and to document the verification outcomes
Westat	International contractor responsible for the survey operations as part of Core A and sampling as Core C
Within-School Sampling Manual (WSSM)	Explains in detail how to use the KQ software to complete the within-school sampling procedures for PISA. It describes the preparation, sampling, and updates and verification for all assessment arrangements and also how sampling data after data collection is to be prepared and submitted.

Workflow	A sequence of activities performed by a specific person or group of persons according to a detailed timeline. In PISA, workflows are mainly used to manage the negotiation, translation, and verification of the questionnaires and cognitive instruments for CBA countries. The PISA Portal has a part that is used to set up and monitor the different defined tasks arranged as a workflow
XML Localisation Interchange File Format (XLIFF)	A format used to exchange localisation data between participants in a translation project. This special format enables translators to concentrate on the text to be translated without worrying about text layout. The XLIFF file has the .xlf extension and is used to translate the cognitive instruments

APPENDIX D. TENTATIVE SCHEDULE OF TASKS, BY PHASES AND AREA

This Appendix includes a tentative schedule of tasks organised by the following phases:

- First Review Phase (described in Chapter 4 and Exhibit D.1 below)

- Field Trial (FT) Preparation Phase (described in Chapter 5 and Exhibit D.2 below)

- Field Trial Phase (described in Chapter 6 and Exhibit D.3 below)

- Second Review Phase (described in Chapter 7 and Exhibit D.4 below)

- Main Survey (MS) Preparation Phase (described in Chapter 8 and Exhibit D.5 below)

- Main Survey Phase (described in Chapter 9 and Exhibit D.6 below)

- Review and Reporting Phase (described in Chapter 10 and Exhibit D.7 below)

Additionally, within these phases, tasks are organised by areas. Please note that this NPM Manual Part 1 includes, in addition to the three first introductory chapters, descriptions of tasks up to the Field Trial phase in Chapters 4-7. The remaining four phases that will be described in Chapters 7-10 will be released in a NPM Manual Part 2 around February 2017. This partial release is to ensure that the later tasks are described with greater precision. Thus, the schedule presented below will be adjusted as the project evolves.

The following colour scheme is used in exhibits D.1 to D.7 below:

General Tasks
Data Collection Periods
NPM Meetings or International Trainings
Subject Matter Expert Group Meetings: *Science Expert Group (SEG), Global Competence Expert Group (GEG), Questionnaire Expert Group (QEG)*
Technical Advisory Group (TAG) Meetings

Exhibit D.1 – Tentative schedule of tasks for the First Review Phase

PISA 2018 TASKS (First Review Phase)	Responsibility	START DATE	END DATE
Meetings and Trainings			
TAG Meeting: Assessment draft design	OECD and Contractors	Jun-15	Jun-15
REG, GEG, and QEG Meeting: Discuss and generate the first draft frameworks	Core B Framework	Jan-15	Jan-15
REG, GEG, and QEG Meeting: Discuss frameworks and review sample tasks	Core B Framework	Jun-15	Jul-15
REG, GEG, and QEG Meeting: Finalise FT instruments	Core A Cognitive and Questionnaire Content	Dec-15	Jan-16
NPM Meeting 1:General information, timeline, integrated assessment design, sampling, proposed FT instruments, translation and adaptation training; beginning of questionnaire adaptation period	Contractors and Countries	Mar-16	Mar-16
General Tasks			
Develop and release the PISA 2018 Portal	Core A Platform	Jan-15	Sep-15
PISA 2018 assessment draft design	Core A Cognitive	Jun-15	Oct-15
Nominate NPMs and establish National Centres	Countries	Jul-15	Oct-15
Prepare key documents including FT NPM manual (Part 1) and Technical Standards	All Contractors	Jul-15	Oct-15
School Readiness Tool released to PBA countries from PISA 2015 or new countries	Core A Platform	Jul-15	Jul-15
Decide on participation in international options	Countries	Dec-15	Dec-15
Development of Field Trial Instruments			
Stimulus submission by countries	Core A Cognitive and Countries	Mar-15	Aug-15
Development of new materials for Reading Literacy and Global Competence (item writing, review, translatability, authoring and testing) and proposal for FT instruments	Core A Cognitive and Countries	Apr-15	Jan-16
Development of questionnaires (item writing, review, translatability, and authoring) and proposal for FT questionnaires	Core A Questionnaire Content and Countries	Apr-15	Jan-16
Item submission by countries	Core A Cognitive and Countries	Jul-15	Sep-15

National review of new items for Reading Literacy and Global Competence for the FT	Countries	Sep-15	Nov-15
National review of draft questionnaire materials for the FT	Countries	Nov-15	Nov-15
Development of the French version of the FT instruments and questionnaires and preparations of translation and adaptation materials for all instruments	Cores A Cognitive and D	Dec-15	Mar-16
National review of proposed FT questionnaires	Countries	Dec-15	Jan-16
National review and final approval of FT Instruments (cognitive instruments and questionnaires)	OECD Secretariat and Countries (PGB)	Feb-16	Feb-16
Sampling			
Complete, submit, and work towards approval, cycle-wide Sampling Task 0 (ST0) – FT and MS testing languages	Countries	Oct-15	Nov-15
Country-specific cycle-wide sampling plans are released for countries to review and to specify all options that will impact sampling	Core C Sampling and countries	Jan-16	April 16
Negotiate Study Programme Tables for both the FT and MS	Core C Sampling and Countries	Jan-16	Jan-16
Prepare FT sampling forms and develop initial FT Sampling Guidelines	Core C Sampling	Jan-16	Feb-16
Release FT Sampling Guidelines document	Core C Sampling	Mar-16	Mar-16
Finalise and release first two cycle-wide sampling forms	Core C Sampling	May-16	May-16
Complete and submit cycle-wide Sampling Task 1 (ST1) - testing dates and population definition for both FT and MS	Countries	Jun-16	Jun-16
Review and finalise ST1	Core C Sampling and Countries	Jun-16	Mar-17
Complete and submit cycle-wide Sampling Task 2 (ST2) - school and student information for both FT and MS	Countries	Jul-16	Jul-16
Review and finalise ST2	Core C Sampling and Countries	Jul-16	Mar-17
Translation, Adaptation, and Verification			
Complete and submit Translation Plan	Countries	Dec-15	Jan-16
Discuss Preferred Verification Schedule (PVS)	Core D Translation Verification and	Feb-16	Mar-16

	Countries		

Exhibit D.2 – Tentative schedule of tasks for the Field Trial Preparation Phase

PISA 2018 TASKS (Field Trial Preparation Phase)	Responsibility	START DATE	END DATE
Translation, Adaptation, and Verification			
Questionnaire adaptation negotiations	Core A Questionnaire Content, Core D Translation Verification, and Countries	Mar-16	Jul-16
Translation and adaptation of cognitive materials and questionnaires (as per agreed-upon translation schedule)	Countries	Apr-16	Nov-16
Verification of cognitive materials and questionnaires and associated materials (as per agreed-upon translation schedule)	Core A Translation Referee, Core D Translation Verification, and Countries	Jul-16	Mar-17
Sampling			
Release templates for FT Sampling Task 3 and 3a (ST3 and ST3a)	Core C Sampling	Jul-16	Jul-16
Release FT Sampling Task 4 (ST4) template	Core C Sampling	Aug 16	Aug 16
Complete and submit Sampling Tasks 3A and 3B (ST3A and ST3B) – detailed FT sample design	Countries	Sep-16	Sep-16
Review and finalise ST3A and ST3B	Core C Sampling and Countries	Sep-16	Mar-17
Complete and submit Sampling Task 4 (ST4) - List of sampled schools	Countries	Nov-16	Nov-16
Review and finalise ST4	Core C Sampling and Countries	Nov-16	Mar-17
Review and approve FT Sampling Task 5 (ST5)	Core C Sampling and Countries	Dec-16	Mar-17

Exhibit D.3 – Tentative schedule of tasks for the Field Trial Phase

PISA 2018 TASKS (Field Trial Phase)	Responsibility	START DATE	END DATE
Meetings and Trainings			
NPM Meeting 2: KeyQuest training, coding questionnaires, overview of CBA systems	Contractors and Countries	Nov-16	Nov-16
FT International Training: Training on coding procedures and item-by-item for cognitive items, and data management	Contractors and Countries	Jan-17	Feb-17
Survey Operations			
Release final FT school materials for NPM	Core A Survey Operations	Oct-16	Oct-16
Adaptation of FT School-level Materials	Core A Survey Operations and Countries	Nov-16	Jul-17
Webinar: Preparing for TA/SA Trainings	Core A Survey Operations	Jan-17	Feb-17
Development of Field Trial Instruments			
Assemble and test international master FT SDS (CBA Countries)	Core A Cognitive and Countries	Aug-16	Nov-16
Assemble and test national FT SDS (CBA Countries), based on agreed-upon schedule dependent on FT dates	Core A Platform and Countries	Nov-16	Apr-17
Assemble FT paper booklets (PBA Countries), based on agreed-upon schedule dependent on FT dates	Core A Cognitive and Countries	Nov-16	Mar-17
Student Sampling (FT)			
Student sampling helpdesk (FT)	Core C Sampling and Countries	Jan-17	Aug-17
Field Trial Data Collection Period (6 weeks per country)	**Countries**	**Mar-17**	**Aug-17**
Sampling			
Receive, review, and finalise FT Sampling Task 6 (ST6) sampling data	Core C Sampling and Countries	Apr-17	Oct-17
Finalise FT ST6 sampling data	Core C Sampling and Countries	Oct-17	Oct-17
Data Preparation, Management, and Analysis			

National FT data file preparation (scoring, data entry, validity and reliability checks) and data submission (8 weeks per country, processed in batches according to FT dates)	Countries	May-17	Oct-17
Coder query service for cognitive data	Core A Cognitive and Countries	May-17	Oct-17
National FT data file submission (8 weeks of your last testing date)	Countries	May-17	Oct-17
Data cleaning and data analysis for both cognitive and questionnaires: The end process will be certified data with proxies that are delivered to countries in batches based on their submission and approval date	Core A Data Management, Cognitive and Questionnaire Content	Jul-17	Dec-17

Exhibit D.4 – Tentative schedule of tasks for the Second Review Phase

PISA 2018 TASKS (Second Review Phase)	Responsibility	START DATE	END DATE
Meetings and Trainings			
TAG Meeting: Review FT analyses and results and proposed MS instruments	OECD and Contractors	Oct-17	Oct-17
REG, GEG, and QEG Meetings: Finalise MS instruments to be shared with NPMs and PGB	Core A Cognitive and Questionnaire Content	Oct-17	Oct-17
School Sampling			
Prepare and release 2018 Main Survey sampling forms	Core C Sampling	Jan-17	Mar-17
Release 2018 MS School Sampling Preparation Manual	Core C Sampling	Mar-17	Mar-17
Send out 1-month MS sampling form submission reminder for upcoming samples	Core C Sampling	Mar-17	Mar-18
Complete and submit MS sampling forms 2 months before negotiated sample delivery date	Countries	Apr-17	Mar-18
Review and finalise country MS sampling forms	Core C Sampling and Countries	Apr-17	Mar-18
Deliver first MS school sample	Core C Sampling	Jun-17	Jun-17
Deliver MS school samples	Core C Sampling	Jul-17	Apr-18
Deliver last MS school sample	Core C Sampling	Apr-18	May-18
Development of Main Survey Instruments			
PISA 2018 integrated assessment design for the MS	Core A Cognitive	Sep-17	Oct-17
Propose MS Instruments	Core A Cognitive and Questionnaire Content	Sep-17	Oct-17
Correct errors or implement central changes from FT to MS	Core A Cognitive and Questionnaire Content, Core D Translation Verification, and Countries	Oct-17	Dec-17
National review of proposed MS instruments	Countries	Oct-17	Oct-17
National review and final approval of MS Instruments (cognitive instruments and questionnaires)	OECD and PGB	Oct-17	Nov-17

Finalise MS coding guides for new domains (implement updates and verification)	Core A Cognitive, Core D Translation Verification, and Countries	Jan-18	May-18
Survey Operations			
Release draft MS School Materials for NPM	Core A Survey Operations	Sep-17	Sep-17

Exhibit D.5 – Tentative schedule of tasks for the Main Survey Preparation Phase

PISA 2018 TASKS (Main Survey Preparation Phase)	Responsibility	START DATE	END DATE
Meetings and Trainings			
NPM Meeting 3: Review FT results, review MS proposed instruments, MS school sampling procedures and process for finalising instruments for the MS	Contractors and Countries	Oct-17	Oct-17
MS International Training: Coding procedures and item-by-item for cognitive items, data management training, and KQ re-training	Contractors and Countries	Jan-18	Feb-18
Development of Main Survey Instruments			
Assemble and test international master MS SDS (CBA Countries)	Core A Platform	Nov-17	Nov-17
Assemble of MS paper booklets (PBA Countries), based on agreed-upon schedule dependent on MS dates	Core A Cognitive and Countries	Nov-17	Mar-18
Assemble and test national MS SDS (CBA Countries), based on agreed-upon schedule dependent on MS dates	Core A Platform and Countries	Dec-17	Apr-18
Survey Operations			
Release draft PQM Materials to NPM	Core A Survey Operations	Sep-17	Sep-17

Exhibit D.6 – Tentative schedule of tasks for the Main Survey Phase

PISA 2018 TASKS (Main Survey Phase)	Responsibility	START DATE	END DATE
Student Sampling (MS)			
Student sampling helpdesk (MS)	Core C Sampling and Countries	Jan-18	Dec-18
Survey Operations			
Release final MS school materials for NPM	Core A Survey Operations	Oct-17	Oct-17
Adaptation of MS School-level Materials	Core A Survey Operations and Countries	Nov-17	Sep-18
Release final PQM Materials to NPM	Core A Survey Operations	Oct-17	Oct-17
PQM training - Disseminate PQM Manuals/Self-Training Materials to PQMs, monitor completion of PQM self-trainings, and conduct follow-up webinars	Core A Survey Operations	Jan-18	Sep-18
Main Survey Data Collection Period (6 weeks per country)	**Countries**	**Mar-18**	**Dec-18**
Data Preparation, Management, and Analysis			
National FT data file preparation (scoring, data entry, validity, and reliability checks) and data submission (8 weeks per country, processed in batches according to FT dates)	Countries	May-18	Feb-19
Coder query service for cognitive data	Core A Cognitive and Countries	May-18	Feb-19
National FT data file submission (8 weeks of your last testing date)	Countries	May-18	Feb-19

Exhibit D.7 – Tentative schedule of tasks for the Review and Reporting Phase

PISA 2018 TASKS (Review and Reporting Phase)	Responsibility	START DATE	END DATE
Meetings and Trainings			
TAG Meeting: Review MS analyses and results and discuss adjudication results	OECD	Jun-19	Jun-19
REG and GEG Meetings: Review MS results and finalise described proficiency scales	Core A (ETS)	Jun-19	Jun-19
Data Preparation, Management, and Analysis			
Data cleaning and data analysis. Processed in batches based on data submission. The end process will be certified data with proxies that are delivered to countries based on their submission and approval date	Core A Data Management, Cognitive and Questionnaire Content	Jul-18	Apr-19
Data analysis and scaling	Core A	May-19	Jun-19
Data adjudication process	Contractors and OECD	Jun-19	Jul-19
Sample Weighting			
Receive, review, and finalise MS sampling data	Core C Sampling and Countries	Apr-18	Dec-18
Complete weighting steps 1-2 for all countries and step 3 for those with finalised sampling data	Core C Sampling	May-18	Aug-18
Complete revisions for weighting steps 4-12	Core C Sampling	Jul-18	Sep-18
Receive cleaned student data for step 4 and onward weighting	Core C Sampling	Jul-18	Mar-19
Contact NPMs to explain data discrepancies	Core C Sampling and Countries	Jul-18	Mar-19
Continue with weighting	Core C Sampling	Oct-18	Mar-19
Complete weighting	Core C Sampling	Apr-19	Apr-19
Submit weights for international database	Core C Sampling	Apr-19	Apr-19
Deliver weighting summaries to each country	Core C Sampling	May-19	May-19
Non-response Bias Analysis (NRBA)			
Contact NPMs for non-response bias analysis when needed	Core C Sampling and Countries	Oct-18	Mar-19

Review results of NPM non-response bias analyses	Core C Sampling	Jan-19	Apr-19
Finalise NRBA and submit NRBA Analysis	Core C Sampling	Apr-19	Apr-19
Reporting			
Technical Report preparation	Contractors and OECD	Nov-18	Dec-19
Publication of Initial Report	OECD	Dec-19	Dec-19
Release of final databases and data products	Core A Data Management	Dec-19	Dec-19

APPENDIX E. TENTATIVE SCHEDULE OF TASKS, CHRONOLOGICAL

This Appendix includes a tentative schedule of the same tasks presented in Appendix D, now organised chronologically to facilitate planning. Please note that this NPM Manual Part 1 includes, in addition to the three first introductory chapters, descriptions of tasks up to the Field Trial (FT) phase in Chapters 4-7. The remaining four phases that will be described in Chapters 7-10 will be released in a NPM Manual Part 2 around February 2017. This partial release is to ensure that the tasks are accurately described. Thus, the schedule presented below will be adjusted as the project evolves.

The following colour scheme is used in exhibits E.1 below:

General Tasks
Data Collection Periods
NPM Meetings or International Trainings
Subject Matter Expert Group Meetings: Science Expert Group (SEG), Global Competence Expert Group (GEG), Questionnaire Expert Group (QEG)
Technical Advisory Group (TAG) Meetings

Exhibit E.1 –Tentative schedule of tasks, chronologically

Survey Phase	Area	PISA 2018 TASKS	Responsibility	START DATE	END DATE
First Review Phase	Meetings	REG, GEG, and QEG Meeting: Discuss and generate the first draft frameworks	Core B Framework	Jan-15	Jan-15
First Review Phase	General Tasks	Develop and release the PISA 2018 Portal	Core A Platform	Jan-15	Sep-15

First Review Phase	Development of FT Instruments	Stimulus submission by countries	Core A Cognitive and Countries	Mar-15	Aug-15
First Review Phase	Development of FT Instruments	Development of new materials for Reading Literacy and Global Competence (item writing, review, translatability, authoring, and testing) and proposal for FT instruments	Core A Cognitive and Countries	Apr-15	Jan-16
First Review Phase	Development of FT Instruments	Development of questionnaires (item writing, review, translatability, and authoring) and proposal for FT questionnaires	Core A Questionnaire Content and Countries	Apr-15	Jan-16
First Review Phase	General Tasks	PISA 2018 assessment draft design	Core A Cognitive	Jun-15	Oct-15
First Review Phase	Meetings	TAG Meeting: Assessment draft design	OECD and Contractors	Jun-15	Jun-15
First Review Phase	Meetings	REG, GEG, and QEG Meeting: Discuss framework and review sample tasks	Core B Framework	Jun-15	Jul-15
First Review Phase	General Tasks	Nominate NPMs and establish National Centres	Countries	Jul-15	Oct-15
First Review Phase	General Tasks	Prepare key documents including FT NPM manual (Part 1) and Technical Standards	All Contractors	Jul-15	Oct-15
First Review Phase	General Tasks	School Readiness Tool released to PBA countries from PISA 2015 or new countries	Core A Platform	Jul-15	Jul-15
First Review Phase	Development of FT Instruments	Item submission by countries	Core A Cognitive and Countries	Jul-15	Sep-15
First Review Phase	Development of FT Instruments	National review of new items for Reading Literacy and Global Competence for the FT	Countries	Sep-15	Nov-15
First Review Phase	Sampling	Complete, submit, and work towards approval, cycle-wide Sampling Task 0 (ST0) – FT and MS testing languages	Countries	Oct-15	Nov-15

First Review Phase	Development of FT Instruments	National review of draft questionnaire materials for the FT	Countries	Nov-15	Nov-15
First Review Phase	General Tasks	Decide on participation in international options	Countries	Dec-15	Dec-15
First Review Phase	Translation, Adaptation, and Verification	Complete and submit Translation Plan	Countries	Dec-15	Jan-16
First Review Phase	Development of FT Instruments	Development of the French version of the FT instruments and questionnaires and preparations of translation and adaptation materials for all instruments	Cores A Cognitive and D	Dec-15	Mar-16
First Review Phase	Development of FT Instruments	National review of proposed FT questionnaires	Countries	Dec-15	Jan-16
First Review Phase	Meetings	REG, GEG, and QEG Meeting: Finalise FT instruments	Core A Cognitive and Questionnaire Content	Dec-15	Jan-16
First Review Phase	Sampling	Country-specific cycle-wide sampling plans are released for countries to review and to specify all options that will impact sampling	Core C Sampling and countries	Jan-16	April 16
First Review Phase	Sampling	Negotiate Study Programme Tables for both the FT and MS	Core C Sampling and Countries	Jan-16	Jan-16
First Review Phase	Sampling	Prepare FT sampling forms and develop initial FT Sampling Guidelines	Core C Sampling	Jan-16	Feb-16
First Review Phase	Development of FT Instruments	National review and final approval of FT Instruments (cognitive instruments and questionnaires)	OECD Secretariat and Countries (PGB)	Feb-16	Feb-16
First Review Phase	Translation, Adaptation, and Verification	Discuss Preferred Verification Schedule (PVS)	Core D Translation Verification and Countries	Feb-16	Mar-16

First Review Phase	Survey Operations	NPM Meeting 1: General information, timeline, integrated assessment design, sampling, proposed FT instruments, translation and adaptation training; beginning of questionnaire adaptation period	Contractors and Countries	Mar-16	Mar-16
Field Trial Preparation Phase	Translation, Adaptation, and Verification	Questionnaire adaptation negotiations	Core A Questionnaire Content, Core D Translation Verification and Countries	Mar-16	Jul-16
First Review Phase	Sampling	Release FT Sampling Guidelines document	Core C Sampling	Mar-16	Mar-16
Field Trial Preparation Phase	Translation, Adaptation, and Verification	Translation and adaptation of cognitive materials and questionnaires (as per agreed-upon translation schedule)	Countries	Apr-16	Nov-16
First Review Phase	Sampling	Finalise and release first two cycle-wide sampling forms	Core C Sampling	May-16	May-16
First Review Phase	Sampling	Complete and submit cycle-wide Sampling Task 1 (ST1) - testing dates and population definition for both FT and MS	Countries	Jun-16	Jun-16
First Review Phase	Sampling	Review and finalise ST1	Core C Sampling and Countries	Jun-16	Mar-17
First Review Phase	Sampling	Complete and submit cycle-wide Sampling Task 2 (ST2) - school and student information for both FT and MS	Countries	Jul-16	Jul-16
Field Trial Preparation Phase	Sampling	Release templates for FT Sampling Task 3 and 3a (ST3 and ST3a)	Core C Sampling	Jul-16	Jul-16
First Review Phase	Sampling	Review and finalise ST2	Core C Sampling and Countries	Jul-16	Mar-17
Field Trial Preparation	Translation,	Verification of cognitive materials and	Core A, Core D	Jul-16	Mar-17

Phase	Adaptation, and Verification	questionnaires and associated materials (as per agreed-upon translation schedule)	Translation Verification and Countries		
Field Trial Preparation Phase	Sampling	Release FT Sampling Task 4 (ST4) template	Core C Sampling	Aug 16	Aug 16
Field Trial Phase	Development of FT Instruments	Assemble and test international master FT SDS (CBA Countries)	Core A Cognitive and Countries	Aug-16	Nov-16
Field Trial Preparation Phase	Sampling	Review and finalise ST3A and ST3B	Core C Sampling and Countries	Sep-16	Mar-17
Field Trial Phase	Survey Operations	Release final FT school materials for NPM	Core A Survey Operations	Oct-16	Oct-16
Field Trial Preparation Phase	Sampling	Complete and submit Sampling Task 4 (ST4) - List of sampled schools	Countries	Nov-16	Nov-16
Field Trial Preparation Phase	Sampling	Review and finalise ST4	Core C Sampling and Countries	Nov-16	Mar-17
Field Trial Phase	Meetings	NPM Meeting 2: KeyQuest training, coding questionnaires, overview of CBA systems	Contractors and Countries	Nov-16	Nov-16
Field Trial Phase	Survey Operations	Adaptation of FT School-level Materials	Core A Survey Operations and Countries	Nov-16	Jul-17
Field Trial Phase	Development of FT Instruments	Assemble and test national FT SDS (CBA Countries), based on agreed-upon schedule dependent on FT dates	Core A Platform and Countries	Nov-16	Apr-17
Field Trial Phase	Development of FT Instruments	Assemble FT paper booklets (PBA Countries), based on agreed-upon schedule dependent on FT dates	Core A and Countries	Nov-16	Mar-17
Field Trial Preparation Phase	Sampling	Review and approve FT Sampling Task 5 (ST5)	Core C Sampling and Countries	Dec-16	Mar-17
Field Trial Phase	Meetings	FT International Training: Training on coding	Contractors and	Jan-17	Feb-17

		procedures and item-by-item for cognitive items, and data management	Countries		
Field Trial Phase	Survey Operations	Webinar: Preparing for TA/SA Trainings	Core A Survey Operations	Jan-17	Feb-17
Second Review Phase	School Sampling Plan	Prepare and release 2018 Main Survey sampling forms	Core C Sampling	Jan-17	Mar-17
Field Trial Phase	Student Sampling (FT)	Student sampling helpdesk (FT)	Core C Sampling and Countries	Jan-17	Aug-17
Field Trial Phase	Survey Operations	Field Trial Data Collection Period (6 weeks per country)	Countries	Mar-17	Aug-17
Second Review Phase	School Sampling Plan	Release 2018 MS School Sampling Preparation Manual	Core C Sampling	Mar-17	Mar-17
Second Review Phase	School Sampling Plan	Send out 1-month MS sampling form submission reminder for upcoming samples	Core C Sampling	Mar-17	Mar-18
Field Trial Phase	Sampling	Receive, review and finalise FT Sampling Task 6 (ST6) sampling data	Core C Sampling and Countries	Apr-17	Oct-17
Second Review Phase	School Sampling Plan	Complete and submit MS sampling forms 2 months before negotiated sample delivery date	Countries	Apr-17	Mar-18
Second Review Phase	School Sampling Plan	Review and finalise country MS sampling forms	Core C Sampling and Countries	Apr-17	Mar-18
Field Trial Phase	Data Preparation, Management, and Analysis	National FT data file preparation (scoring, data entry, validity and reliability checks) and data submission (8 weeks per country, processed in batches according to FT dates)	Countries	May-17	Oct-17
Field Trial Phase	Data Preparation, Management, and Analysis	Coder query service for cognitive data	Core A Cognitive and Countries	May-17	Oct-17
Field Trial Phase	Data Preparation, Management, and	National FT data file submission (8 weeks of your last testing date)	Countries	May-17	Oct-17

	Analysis				
Second Review Phase	School Sampling Plan	Deliver first MS school sample	Core C Sampling	Jun-17	Jun-17
Field Trial Phase	Data Preparation, Management, and Analysis	Data cleaning and data analysis for both cognitive and questionnaires. The end process will be certified data with proxies that are delivered to countries in batches based on their submission and approval date	Core A Data Management, Cognitive and Questionnaire Content	Jul-17	Dec-17
Second Review Phase	School Sampling Plan	Deliver MS school samples	Core C Sampling	Jul-17	Apr-18
Second Review Phase	Development of MS Instruments	PISA 2018 integrated assessment design for the MS	Core A Cognitive	Sep-17	Oct-17
Second Review Phase	Development of Main Survey Instruments	Propose MS Instruments	Core A Cognitive and Questionnaire Content	Sep-17	Oct-17
Second Review Phase	Survey Operations	Release draft MS School Materials for NPM	Core A Survey Operations	Sep-17	Sep-17
Field Trial Phase	Sampling	Finalise FT ST6 sampling data	Core C Sampling and Countries	Oct-17	Oct-17
Second Review Phase	Development of Main Survey Instruments	Correct errors or implement central changes from FT to MS	Core A Cognitive and Questionnaire Content, Core D Translation Verification, and Countries	Oct-17	Dec-17
Second Review Phase	Development of Main Survey Instruments	National review of proposed MS instruments	Countries	Oct-17	Oct-17
Second Review Phase	Development of Main Survey	National review and final approval of MS Instruments (cognitive instruments and	OECD and PGB	Oct-17	Nov-17

	Instruments	questionnaires)			
Main Survey Preparation Phase	Survey Operations	Release draft PQM Materials to NPM	Core A Survey Operations	Oct-17	Oct-17
Second Review Phase	Meetings	TAG Meeting: Review FT analyses and results and proposed MS instruments	OECD	Oct-17	Oct-17
Second Review Phase	Meetings	REG, GEG, and QEG Meetings: Finalise MS instruments to be shared with NPMs and PGB	Core A Cognitive and Questionnaire Content	Oct-17	Oct-17
Main Survey Preparation Phase	Meetings	NPM Meeting 3: Review FT results, review MS proposed instruments, MS school sampling procedures, KeyQuest training, and process for finalising instruments for the MS	Contractors and Countries	Oct-17	Oct-17
Main Survey Phase	Survey Operations	Release final MS SA/SC/TA school materials for NPM	Core A Survey Operations	Oct-17	Dec-17
Main Survey Phase	Survey Operations	Adaptation of MS School-level Materials	Core A Survey Operations and Countries	Nov-17	Sep-18
Main Survey Preparation Phase	Development of Main Survey Instruments	Assemble of MS paper booklets (PBA Countries), based on agreed-upon schedule dependent on MS dates	Core A and Countries	Nov-17	Mar-18
Main Survey Preparation Phase	Development of Main Survey Instruments	Assemble and test international master MS SDS (CBA Countries)	Core A	Nov-17	Nov-17
Main Survey Preparation Phase	Development of Main Survey Instruments	Assemble and test national MS SDS (CBA Countries), based on agreed-upon schedule dependent on MS dates	Core A and Countries	Dec-17	Apr-18
Main Survey Phase	Survey Operations	Release final PQM Materials to NPM	Core A Survey Operations	Dec-17	Dec-17
Main Survey Phase	Student Sampling	Student sampling helpdesk (MS)	Core C Sampling	Jan-18	Dec-18

	(MS)		and Countries		
Main Survey Preparation Phase	Meetings	MS International Training: Coding procedures and item-by-item for cognitive items.	Contractors and Countries	Jan-18	Feb-18
Second Review Phase	Development of Main Survey Instruments	Finalise MS coding guides for new domains (implement updates and verification)	Core A Cognitive, Core D Translation Verification and Countries	Jan-18	May-18
Main Survey Phase	Survey Operations	PQM training - Disseminate PQM Manuals/Self-Training Materials to PQMs, monitor completion of PQM self-trainings and conduct follow-up webinars	Core A Survey Operations	Feb-18	Sep-18
Main Survey Phase	Survey Operations	**Main Survey Data Collection Period (6 weeks per country)**	**Countries**	**Mar-18**	**Dec-18**
Second Review Phase	School Sampling Plan	Deliver last MS school sample	Core C Sampling	Apr-18	May-18
Review and Reporting Phase	Sample Weighting	Receive, review, and finalise MS sampling data	Core C Sampling and Countries	Apr-18	Dec-18
Main Survey Phase	Data Preparation, Management, and Analysis	National FT data file preparation (scoring, data entry, validity and reliability checks) and data submission (8 weeks per country, processed in batches according to FT dates)	Countries	May-18	Feb-19
Main Survey Phase	Data Preparation, Management, and Analysis	Coder query service for cognitive data	Core A Cognitive and Countries	May-18	Feb-19
Main Survey Phase	Data Preparation, Management, and Analysis	National FT data file submission (8 weeks of your last testing date)	Countries	May-18	Feb-19
Review and Reporting Phase	Sample Weighting	Complete weighting steps 1-2 for all countries and step 3 for those with finalised sampling data	Core C Sampling	May-18	Aug-18

Review and Reporting Phase	Data Preparation, Management, and Analysis	Data cleaning and data analysis. Processed in batches based on data submission. The end process will be certified data with proxies that are delivered to countries based on their submission and approval date	Core A Data Management, Cognitive and Questionnaire Content	Jul-18	Apr-19
Review and Reporting Phase	Sample Weighting	Complete revisions for weighting steps 4-12	Core C Sampling	Jul-18	Sep-18
Review and Reporting Phase	Sample Weighting	Receive cleaned student data for step 4 and onward weighting	Core C Sampling	Jul-18	Mar-19
Review and Reporting Phase	Sample Weighting	Contact NPMs to explain data discrepancies	Core C Sampling and Countries	Jul-18	Mar-19
Review and Reporting Phase	Non-response Bias Analysis (NRBA)	Contact NPMs for non-response bias analysis when needed	Core C Sampling and Countries	Oct-18	Mar-19
Review and Reporting Phase	Sample Weighting	Continue with weighting	Core C Sampling	Oct-18	Mar-19
Review and Reporting Phase	Reporting	Technical Report preparation	Contractors and OECD	Nov-18	Dec-19
Review and Reporting Phase	Non-response Bias Analysis (NRBA)	Review results of NPM non-response bias analyses	Core C Sampling	Jan-19	Apr-19
Review and Reporting Phase	Sample Weighting	Complete weighting	Core C Sampling	Apr-19	Apr-19
Review and Reporting Phase	Sample Weighting	Submit weights for international database	Core C Sampling	Apr-19	Apr-19
Review and Reporting Phase	Non-response Bias Analysis (NRBA)	Finalise NRBA and submit NRBA Analysis	Core C Sampling	Apr-19	Apr-19
Review and Reporting Phase	Data Preparation, Management, and Analysis	Data analysis and scaling	Core A	May-19	May-19

Review and Reporting Phase	Sample Weighting	Deliver weighting summaries to each country	Core C Sampling	May-19	May-19
Review and Reporting Phase	Reporting	Data adjudication process	Contractors and OECD	Jun-19	Jul-19
Review and Reporting Phase	Meetings and Trainings	TAG Meeting: Review MS analyses and results and discuss adjudication results	OECD	Jun-19	Jun-19
Review and Reporting Phase	Meetings	REG and GEG Meetings: Review MS results and finalise described proficiency scales	Core A (ETS)	Jun-19	Jun-19
Review and Reporting Phase	Reporting	Publication of Initial Report	OECD	Dec-19	Dec-19
Review and Reporting Phase	Reporting	Release of final databases and data products	Core A Data Management	Dec-19	Dec-19