



7

PISA Quality Monitoring

Field Trial and Main Survey review	128
Final Optical Check	128
National Centre Quality Monitor (NCQM) visits and consultations	129
PISA Quality Monitor (PQM) visits	129
Test Administration	130
Data adjudication	130
Post Final Optical Check	130



PISA data collection activities are undertaken in accordance with strict quality assurance procedures. The quality assurance that ensures the PISA 2012 data are fit for use consists of two components. The first is to develop and document procedures for data collection and the second is to monitor and record the implementation of those procedures. This chapter considers the second part of the process – monitoring quality.

While the aim of quality control is to establish effective and efficient procedures and guide implementation process, quality monitoring activities are set to observe and record any deviations from those agreed procedures during the implementation of the survey.

- Field Trial and Main Survey review
- Final Optical Check
- National Centre Quality Monitor (NCQM) visits and consultations
- PISA Quality Monitor (PQM) visits
- Test Administration
- Post Final Optical Check

FIELD TRIAL AND MAIN SURVEY REVIEW

After the implementation of the Field Trial and the Main Survey, National Project Managers (NPM) were given the opportunity to review and provide feedback to the international contractor on all aspects of the field operations. This information is used to guide future implementations of the assessment.

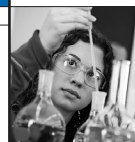
The Field Trial and Main Survey reviews were organised around all aspects outlined in the NPM manual:

- use of key documents and processes: use a rating system to review NPMs' level of satisfaction with the clarity of key documents and manuals;
- communication with the international contractor;
- review the usefulness of the MyPISA website; as well as using a rating system to review the communication by activity;
- implementation of national and international options: confirm if National Centre had executed any national and international options as agreed;
- review the outcomes of and process for provision of national feedback on proposed test items;
- security arrangements: review security arrangements to confirm if they had been implemented;
- sampling plan: confirm if the PISA Field Trial test was implemented as agreed in the sampling plan;
- translation/adaptation/verification: review the translation, adaptation and verification processes to see if they were implemented in accordance with PISA technical standards and to a satisfactory level;
- archiving of materials: confirm if the National Centre had archived the test materials in accordance with the technical standards;
- printing: review the print quality agreement process;
- Test Administration: review Test Administrators training processes and Test Administration procedures;
- quality assurance: review the Field Trial PISA Quality Monitoring activity at national level, as well as the PQM activity during Main Survey at international level;
- coding: review coder training procedures, coding procedures, coding designs and the time required for coding; and
- data management: review the data management processes, including student sampling, database adaptation, data entry, coding of occupational categories, validity reports and data submission.

FINAL OPTICAL CHECK

Before printing assessment materials in each participating country, NPMs electronically submit their final version of the test booklets to the international contractor for a Final Optical Check (FOC). The FOC is undertaken by the international contractor's verifiers and involves a page-by-page inspection of test booklets and questionnaire forms with regard to correct implementation of agreed adaptations, correct item allocation to test forms, layout, page numbering, item numbering, graphic elements, item codes, footers and so on (see Chapter 5).

Any error found during the FOC is recorded and forwarded to National Centres for correction.



NATIONAL CENTRE QUALITY MONITOR (NCQM) VISITS AND CONSULTATIONS

Most countries participating in PISA 2012 had already been involved in the PISA assessment, so only new countries without international assessment experience or countries in which problems had arisen were visited. This resulted in visits to three countries. Visits were usually carried out during the Field Trial period so that preventive and corrective action could be taken if any potential problems were detected.

During the visits, the NCQM conducted a face-to-face interview with the NPM or a representative from the National Centre. Any potential problems identified by the NCQM were forwarded to the relevant international contractor expert for appropriate action. A collated response to all problems identified was sent back to the visited National Centre after the visit.

The NCQMs have comprehensive knowledge and extensive experience regarding PISA operations. Each NCQM was trained and provided with the National Centre's project implementation data in great detail. Prior to each visit, NCQMs studied the national materials in order to be familiar with country-specific information during the interview with NPMs.

The purpose of this interview is twofold. Firstly, it allows staff members of the international contractor to become familiar with the operations of PISA in national context, as well as any specific challenges 'new countries' may be facing in national contexts. Secondly, it provides National Centre staff with the opportunity to ask questions or receive clarification about any aspect of the survey.

The NCQM interview schedule is a list of areas that was prepared for the international contractor representatives to lead the interview in a structured way, so that the outcomes of the NCQM site visit could be recorded systematically and consistently across countries. This interview schedule covers the following areas:

- General organisation of PISA in each country
- Sampling
- Adaptation, translation and printing of tests, questionnaires and operational materials
- Dispatch of materials and Test Administration
- Security and checking back of materials
- Cognitive item coding
- Data management and submission

As well as more formal NCQM visits, a large number of consultations meetings took place between senior staff of the international contractor and NPMs or other representatives of National Centres, in the context of NPM meetings. An extensive schedule of consultation meetings was developed prior to each meeting, and the consultations provided the opportunity for detailed discussion on a wide variety of PISA implementation matters on which additional advice or support was sought by the National Centre.

In addition, the international contractor was in constant communication with all countries through email and via the MyPISA website.

PISA QUALITY MONITOR (PQM) VISITS

The International Contractor appoints a single PISA Quality Monitoring co-ordinator. This person is familiar with all aspects of the implementation of PISA. The PQM co-ordinator's role involves directly recruiting the PQMs in each of the countries, organising their training, approving the list of schools to visit and collecting information from the PQM visits.

PQMs are individuals employed by the international contractor and located in participating countries. They visit a sample of schools to observe Test Administration and to record the implementation of the documented field operations procedures in the Main Survey. Typically, one or two PQMs were hired for each country and they visit a total of 7 or 8 schools in each country.

All PQMs are nominated by the NPMs through a formal process of submission of nominations to ACER. Based upon the NPM nominations, which are accompanied by candidate resumes, the PISA Quality Monitoring co-ordinator selects PQMs who are independent from the National Centre, knowledgeable in testing procedures or with a background in education and research, and able to fluently communicate in English. Where the resume does not match the selection criteria, further information or an alternate nomination is sought.



The *PQM Manual*, PQM self-training package, other operational manuals and copies of data collection sheets were made available to all PQMs upon receipt of their signed confidentiality agreement via emails and post. The PQMs were also given access to a designated PQM web page on the MyPISA website from which they could download materials and information. All PQMs were self-trained using the PQM training PowerPoint®, which has an embedded soundtrack. At the same time, the PQM co-ordinator provided support and addressed any issues or concerns via email. The PQMs and the PQM co-ordinator collaborated to develop a schedule of Test Administration site visits to ensure that a range of schools was covered and that the schedule of visits was both economically and practically feasible. ACER paid the expenses and fees directly to each PQM. In most countries, seven visits to schools were carried out.

The PISA School Co-ordinator in each school is responsible for providing a link between the PISA National Project Manager and the school, its students, teachers and principal. The School Co-ordinator provides the list of 15-year-olds from whom the school's random sample is chosen and organises a suitable venue for the testing. The PQM for each country is supplied with a list of School Co-ordinators by the PISA National Project Manager and makes contact with the relevant School Co-ordinators directly after a school has been selected for a PQM visit.

The majority of school visits were unannounced to the Test Administrator. However, in some countries it was not possible to do so when the school associate model was used, where the Test Administrator and the School Co-ordinator are the same person.

A PQM data collection form was developed for PQMs to systematically record their observations during each school visit. The data collection form covers the following areas:

- Preparation for the assessment
- Conducting the assessment
- General questions concerning the assessment
- Interview with the School Co-ordinator

TEST ADMINISTRATION

Test Administrators record all key test session information using a test session report. This report provides detailed data on Test Administration, including:

- Session date and timing
- Position of the Test Administrator
- Conduct of the students
- Testing environment

This information was used to check that the implementation in each school was in accordance with the PISA Technical Standards. The information was also called upon if a country's results showed, for example, a greater degree of country-item interaction.

DATA ADJUDICATION

All quality assurance data collected throughout the cycle are entered and collated in a central data adjudication database. Comprehensive reports are then generated for the Technical Advisory Group (TAG) for consideration during the data adjudication process (see Chapter 14).

The TAG experts use the consolidated quality-monitoring reports from the central data adjudication database to make country-by-country evaluations on the quality of field operations, printing, translation, school and student sampling, and coding. The final reports by TAG experts are then used for the purpose of data adjudication.

POST FINAL OPTICAL CHECK

After both the Field Trial and Main Survey, international contractor staff carried out a thorough checking procedure on all the hard copies of the National Centre test booklets that had been submitted to the international contractor for archiving purpose. The checking was carried out by comparing the National Centres' submitted booklets and the source version of the test booklets that were released by the international contractor, as well as checking issues that were identified during the FOC process to see how well the suggested changes were implemented and to what extent.

Findings were recorded, in particular observed errors were recorded in the data adjudication database.