

National Sample Assessment Protocols

PURPOSE

These protocols represent a working guide for planning and implementing national sample assessments in connection with the national Key Performance Measures (KPMs) outlined in the *Measurement Framework for Schooling in Australian 2012* (www.acara.edu.au).

These protocols are intended for agencies involved in planning or administering national sample assessments and personnel responsible for administering associated tenders or contracts, including:

- ACARA
- assessment contractors
- technology contractors
- state liaison officers (SLOs)
- senior education officials
- NAP Sample working groups
- NAP Sample advisory groups
- principals
- school contact officers and IT coordinators for each sample school
- school staff.

BACKGROUND

The protocols in this document refer to national sample assessments conducted for a representative sample of students in a three-year cycle in:

- Science Literacy (samples of Year 6 students);
- Civics and Citizenship (samples of Year 6 and Year 10 students); and
- Information and Communication Technology (ICT) Literacy (samples of Year 6 and Year 10 students).

These assessments support the measurement and reporting on progress towards the achievement of the objectives outlined in the *Melbourne Declaration on Educational Goals for Young Australians 2008* endorsed by the Ministerial Council for Education, Early Childhood Development and Youth Affairs (MCEECDYA).

Ministers have agreed to report on progress towards the Melbourne Declaration in the following priority areas:

- literacy
- numeracy
- science
- ICT
- civics and citizenship education.

Currently, annual assessments of literacy and numeracy occur for the full cohort of students in Years 3, 5, 7 and 9. In addition, Australia participates in various international assessments in key areas.

The Online Diagnostic Tools (ODT) initiative was announced as a 2010 Australian Government commitment to deliver nationally available assessment tools that can help provide feedback on student progress and targeted learning support.

Under this commitment, and under the direction of the Standing Council on School Education and Early Childhood (SCSEEC), ACARA has been developing and trialing the online delivery of national sample assessments in key areas of the national curriculum, namely science literacy, ICT literacy and civics and citizenship.

In April 2012, SCSEEC approved the online delivery of the NAP-Civics and Citizenship sample assessment in 2013. In December 2012, SCSEEC approved the online delivery of ICT Literacy in 2014 and Science Literacy in 2015.

These protocols for the national sample assessments are presented under four major headings:

- Management, Liaison and Communication
- Development and Administration of Assessments
- Reporting
- Data Storage and Access.

MANAGEMENT, LIAISON AND COMMUNICATION PROTOCOLS

Management

ACARA has responsibility for the national sample assessment program. ACARA engages contractors to carry out tasks associated with the development, administration and reporting of a given national sample assessment.

Working groups

National sample assessment working groups have been established for each assessment domain to provide advice to ACARA on critical aspects of the assessment program. A key function of the working groups is to ensure that the assessment domains are inclusive of the different state and territory curricula and that the items comprising the assessments are fair for all students.

Each working group, chaired by ACARA, consists of:

- curriculum experts in the assessment domain nominated by
 - each state and territory government
 - the Australian government
 - the Independent Schools Council of Australia (ISCA)
 - the National Catholic Education Commission (NCEC)
- an educational measurement specialist (who may be one of the above representatives)
- ACARA staff.

Each working group examines draft assessment instruments to ensure they are of appropriate difficulty, and are valid, free of bias and accessible to all participating students including:

- students with an Indigenous background
- students with a language background other than English
- students with disabilities
- students in metropolitan, remote and very remote areas
- boys and girls.

Advisory group

Members of the working groups who also have expertise in technology form an advisory group to provide specialist advice in relation to online assessments. The advisory group examines test items to ensure they are appropriately rendered in the test delivery system to ensure optimal readability and accessibility for students.

The collaboration and expert input of each the working groups and the advisory group is critical to the development of the national sample assessments.

Liaison and communication

State and territory liaison officers (SLOs) are appointed in each state and territory to assist in the successful implementation of the national sample assessment. Their role includes but is not limited to:

- identifying schools that should not participate in the sample because of extenuating circumstances such as a recent critical incident
- identifying schools in the sample list that may have been amalgamated or closed
- securing the participation of schools in the field trial and main study assessment
- maintaining communication with schools to support their preparation for the online assessment
- ensuring schools complete the online readiness test during the specified period prior to the field trial and the main study
- negotiating replacement schools as appropriate due to a school's unavoidable withdrawal from the assessment
- communicating with schools or school systems as necessary in the conduct of the assessment.

Each of the government, Catholic and independent sectors in each state and territory may nominate an SLO. The Australian government also nominates an SLO to enable it to assist as required and to be kept informed of progress at a national level.

ACARA is responsible for informing SLOs of their role prior to any contact with the sampled schools. SLOs receive copies of all materials sent to schools.

ACARA provides the dates of the assessment to the State and Territory Liaison Officers (SLOs), and requests the participation of schools in the sample. Normally, this communication occurs towards the end of the year prior to testing. Each school system is responsible for ensuring schools participate.

Information brochures are prepared for schools and for parents/caregivers. These are distributed a few months ahead of the main study and are available at www.nap.edu.au.

Assessment contractors provide first and second level helpdesk (telephone and email) support for schools and school systems to clarify procedures associated with the administration of assessments. The helpdesk is available prior to and throughout the technical readiness tests, field trial and main study to respond to technical and administrative queries and support schools experiencing technical difficulty with any aspect of the online assessment.

DEVELOPMENT AND ADMINISTRATION OF ASSESSMENTS

Timing

National sample assessments will be delivered online as follows:

- Civics and Citizenship (Year 6 and Year 10 students) in 2013
- ICT Literacy (Year 6 and Year 10 students) in 2014
- Science Literacy (Year 6) in 2015.

Schools are invited to complete a technical readiness test before they participate in a trial or main study. The technical readiness test allows the school to test their devices and their network to evaluate areas of potential improvement and to ensure the school has the technical capability required for the successful administration of the assessment. For Civics and Citizenship in 2013, schools experiencing internet connectivity difficulties will be provided with back-up technology via USB to assist with the smooth delivery of the assessment on test day.

Field trials are typically administered in Term 1 of the school year. National sample assessments are typically administered in the latter half of October and early November; however, the testing window may extend from September to November for some assessments. Schools may nominate their preferred test dates within the test window.

This timing makes allowance for:

- school vacations across Australia
- state and territory assessment programs
- international assessment programs.

The dates of the assessment are announced in the year prior to the assessment year. Schools selected in the sample are notified at the end of the year prior to the assessment and their participation confirmed in August of the assessment year. Schools selected to participate in the field trial will not be required to participate in the main study.

Development of assessment instruments

Assessment instruments are developed using a conceptual framework for the assessment domain. Existing curriculum across states and territories are used to develop fair and equitable assessment frameworks for each sample assessment. Assessment frameworks remain relevant and reflect current initiatives such as the national curriculum.

A progress map is developed as an integral part of the framework showing a developmental sequence for each assessment domain. The levels are conceived as representing what can be expected from students at key stages of schooling. In developing assessment frameworks, ACARA and the assessment contractor arranges and documents consultation processes with its working groups. Assessment items and tasks are developed in accordance with the assessment framework. Consideration is also given to:

- the benefits afforded by the online delivery mode
- the potential to develop innovative item types
- the potential to broaden the scope of the skills assessed.

Sufficient assessment items and tasks are developed to investigate links between year levels and links between successive cycles of assessment. Additional items are developed for release to schools after the assessment.

Drafts of assessment frameworks, items and tasks, trial results, and associated materials are reviewed by the assessment domain working and advisory groups in consultation with the assessment contractor and ACARA. The final assessment framework and assessment materials are approved by ACARA, and reviewed as required.

Development of online test delivery system

The development of the online test delivery system for 2013 NAP-CC, the first sample assessment to be delivered online, is managed by a contractor in conjunction with ACARA. ACARA and the relevant contractors work closely together to quality assure the system and conduct extensive and comprehensive user acceptance testing to ensure that the system is optimised for schools.

While the development of the test delivery system is managed by the contractor for ACARA, internet reliability at the local level is not assured for all schools. For these schools, back-up technology via USB is available.

Trial of assessment items and tasks

A trial of the assessment items and tasks is conducted early in the assessment year.

The online test delivery methodology and the processes used to trial assessment items are also considered part of the trial. The trial is coordinated by ACARA in consultation with states and territories and administered by the assessment contractor. Lessons learnt from the trial help to inform any modifications required in readiness for the main study.

Processes to trial assessment items and tasks are developed by ACARA in consultation with states and territories.

Sample design

The sample for the assessment includes adequate representation of the states and territories as well as government, Catholic and independent schools, although comparisons are not made between the different sectors.

The sample is designed to be sufficiently representative of the target population to yield adequate information on students' responses across the expected range of levels and to allow comparisons between subgroups according to each of the following variables separately (no simultaneous comparisons):

- sex (male, female)
- Indigenous status (Indigenous, non-Indigenous)
- geographic location (metropolitan, provincial, remote and very remote)

- parental education
- parental occupation
- language background.

Over-sampling may be necessary for some subgroups. ACARA specifies the guidelines for selecting the sample, including sampling processes for small states and territories.

To ensure the integrity of the sample, schools demonstrating limited or unreliable IT capability will be provided with back-up technology via USB which does not require internet connection to complete the assessment.

Student background data

Data on student background characteristics (other than geographic location) are collected in accordance with the nationally consistent definitions as set out in the ACARA Data Standards Manual: Student Background Characteristics (available at www.acara.edu.au).

In jurisdictions where data is centrally located, SLOs are required to provide the student background information. For other jurisdictions, the information is collected from individual schools. This data collection is coordinated by ACARA on behalf of the assessment contractor.

Geographic location

For Year 6 students, geographic location is determined according to the location of the school and is derived from the MCEECDYA Schools Geographic Location Database, which is prepared by the federal government. A copy of the latest database is provided to the assessment contractor for use with Year 6 students.

For Year 10 students, geographic location is determined according to the home location of the student. ACARA provides the contractor with appropriate wording for the student questionnaire to collect the necessary information. ACARA also provides coding procedures to enable coding of the address information to the four levels set out above.

Test administration

For the majority of participating schools, the contractor will provide trained test administrators to administer the online assessment at the school. For a small number of remote schools, the contractor will train a teacher at the school to administer the assessment. This flexible approach is designed to accommodate student attendance and maximize opportunities for the administration of the assessment. In either case, the assessment will be administered in accordance with the procedures detailed in the Test Administrator's Handbook to ensure consistent administration across all participating schools.

The assessment contractor will also supply each school with:

- access to the online assessment including student practice materials via URL link
- access to the technical readiness test prior to the field trial and the main study via URL link
- access to helpdesk services
- background information for staff, students and parents
- guidelines for grouping students for assessment administration
- recommendations relating to minimum/ optimum IT specifications
- equipment or special conditions required
- detailed and explicit instructions for school contact officers and IT coordinators
- detailed and explicit instructions for those administering the assessment to students
- training material for staff administering the assessment where necessary
- instructions for recording absence, withdrawal or exemption

- special procedures for students with learning or physical disability or language difficulties.

The assessment contractor will include advice in the school contact manual on how principals can meet the requirements of the relevant privacy legislation so that students, parents and schools are properly informed of who will have access to the data and how the information from the testing will be reported.

The assessment contractor employs and trains Quality Monitors to quality assure the testing process by means of visits to a sample of the schools during the field trial and main study testing period. Members of the ACARA NAP Sample team are also involved in this process as observers at one or two local schools. All Quality Monitors and ACARA officers have their 'Working with Children' checks up to date.

Participation in assessment, absence, exemption and withdrawal

Assessment processes and instruments are designed to encourage maximum participation by all students.

All students selected as part of the sample are expected to take part in the assessment, except where the student is:

- withdrawn from the assessment at the request of parents/caregivers; or
- granted exemption because of disability, unfamiliarity with the English language or special circumstances.

Where feasible, adjustments may be given to students with disability. These adjustments are variations of the standard assessment conditions to assist students to participate in education on the same basis as other students and provide them with the opportunity to display what they know and can do. Such adjustments will be implemented only where they do not compromise the ability to assess the underlying skills that are the object of the assessment. Such adjustments would not be expected to go beyond what is routinely available to the student in the classroom setting.

Students with a language background other than English may also be eligible for special considerations, to provide them with an opportunity to display what they know and can do without being limited by their language background. Such special considerations will be implemented only where they do not compromise the ability to assess the underlying skills that are the object of the assessment.

Marking

Marking schemes are prepared by the contractor during the development of the assessment items. Refinement of the marking guide may sometimes be necessary during the trial process or the early stages of marking the national sample assessments but the same marking guide is applied to all students' assessment responses.

The assessment contractor arranges for highly experienced markers, many of whom are teachers, to participate in the marking. The marking operation is quality assured by ACARA.

Standards

National sample assessment standards are the result of national collaborative processes and agreed key decisions. National sample assessment standards differ from the national literacy and numeracy benchmarks in that:

- national minimum standards in NAPLAN assessments represent minimum performance standards in literacy and numeracy for a given year level, below which students will have difficulty progressing satisfactorily at school.
- a proficient standard for NAP Sample assessments is the standard in each of the NAP Sample Assessments that represents a reasonably challenging level of performance where students need to show more than the minimal skills expected at that year level in the curriculum area being assessed.

The process of identifying standards occurred as part of the first round of national sample assessments in each domain. An iterative process was applied using stakeholders' views together with empirical judgments.

School release materials

School release materials are available to schools following each sample assessment. The information and assessment materials are made available to schools online and have been designed to assist teachers to administer their own classroom assessments and gauge their own students' proficiency in the relevant area.

Quality assurance

ACARA quality assures all aspects of the development and administration of each national sample assessment. ACARA's quality assurance processes call for collaboration with stakeholders including the working groups, the advisory groups and the assessment contractor.

ACARA establishes and documents specific quality assurance processes for assessment contractors to follow and maintains ongoing monitoring of those processes to ensure the delivery of high quality assessments. Information about the quality of the assessment is included in the Technical Report which is made available to the public at the same time as the Public Report.

REPORTING

Nature of reports

The primary audiences for the reports from the national sample assessments are educators and the public. ACARA may release the main findings in various forums and documents tailored to suit specific purposes and audiences.

The reports produced are of three types:

- the Public Report
- the Technical Report
- school reports (which go directly to schools).

Public Report

The Public Report is released publicly and is concise and designed to be readable by a wide audience. Data are presented in the Public Report in such a way that they can be clearly understood by members of the public and the findings easily grasped without the need for complex statistical understanding.

No information is reported publicly that permits the identification of individual students or schools without their permission. The publication of data for subgroups at a state/territory level occurs only where the confidentiality of individuals, small groups or institutions can be protected.

National reports include the following:

- the purpose of the assessment
- the relevant national goals for the assessment
- any legislative requirements which may impact on the data
- a description of the assessment instrument and procedures
- a description of the review processes for assessment items and standards, the trial processes, and of the sampling process and outcomes
- discussion of limitations of the data
- all results with estimates of statistical uncertainty
- a description of quality assurance processes including editing, compliance checks and audits
- justification of the validity and reliability of the results.

Technical reports

Technical reports are comprehensive and document the procedures and decisions applied during the calibrations of the relevant scales and in the preparation of the Public Report. The technical report is critical to ensuring that future rounds of assessments can replicate the analyses and statistics. Technical reports include but are not limited to:

- details of the assessment instrument and procedures
- details of the review processes for items and standards
- details of trial processes
- details of the sampling process and outcome
- discussion of limitations of the data
- all results with estimates of statistical uncertainty
- details of quality assurance processes including editing, compliance checks and audits
- justification of the validity and reliability of the results.

School reports

School reports are provided to schools following the field trial and main study via an online reporting tool and include summary information on the performance of individual students and the school in relation to the national results.

Approval and publication

ACARA works with stakeholders in reviewing and revising the draft reports. The Public Report is endorsed by the ACARA Chief Executive Officer and the Chair of the ACARA Board. The report is provided to AEEYSOC for noting and is provided to SCSEEC for approval. Before the Report is released, SLOs are advised of the impending release of the report, and ACARA contacts the principals of all participating schools to thank them for their participation and to advise of the release of the Report.

The Public Report and the Technical Report are published on ACARA's website (www.nap.edu.au).

DATA STORAGE AND ACCESS

The full data set is available to ACARA once entry is complete and verified. All data and information about the procedures used for compilation of the data are stored systematically and securely by the assessment contractor for ACARA.

The assessment contractor makes technical information about sampling or statistical analysis accessible for ACARA's data auditing and verification purposes.

Access to assessment data is determined by ACARA. No information identifying individuals or schools is available to any person or agency other than the person or school concerned.

Access to data for research purposes is decided by ACARA in line with the Data Access Protocols (www.acara.edu.au).