

**Senate Standing Committee on Education and Employment - Education**

**QUESTIONS ON NOTICE  
Supplementary Budget Estimates 2013-2014**

**Outcome 2 - Schools and Youth**

**Department of Education Question No. ED0010\_14**

**Senator Carr provided in writing.**

**Question**

**National Assessment Program – Literacy and Numeracy (NAPLAN) online testing**

1. Are there currently any programs working on developing online NAPLAN testing?
2. When did this work commence?
3. What outcomes have been achieved so far?
4. What are the expected implementation timeframes for this program of work?
5. Have any of these timeframes, or any part of this program of work, been agreed by State and Territory Ministers?
6. Have any trials of online NAPLAN testing taken place? What are the details of those trials? How many students have taken part in each year of those trials?
7. How many students are expected to take part in future trials in each year?

**Answer**

1. Are there currently any programs working on developing online NAPLAN testing?

The National Assessment and Surveys Online Programme (NASOP) supports three projects that are contributing to the development of NAPLAN online. Under NASOP, Education Services Australia (ESA) and the Australian Curriculum, Assessment and Reporting Authority (ACARA) are working with the Department and state and territory and non-government education authorities to implement:

- Online delivery of the 2013 National Assessment Program (NAP) Civics and Citizenship sample assessment (NAP-CC);
- Comprehensive research into the assessment and measurement related impacts of moving from paper-based to online tests; and
- An online delivery system, known as the National Online Assessment Capability (NOAC), that will support NAPLAN online and other forms of student assessment.

2. When did this work commence?

Funding agreements were executed with ESA and ACARA in June 2012. Work commenced in July 2012.

### 3. What outcomes have been achieved so far?

#### NOAC

ESA undertook requirements gathering and stakeholder consultation for the NOAC throughout 2013. This work informed business and technical requirements for each component of the system. On 22 October 2013, the Department approved the tender process outcome for the Item Creation and Review tool, which is now in development. ESA released a Request for Tender for the Delivery System and Identity and Access Management modules in early December 2013.

#### Online assessment research

In August to September 2012, ACARA conducted a pilot research study in approximately 125 schools to collect information about the performance of existing NAP items when delivered online. The study also focused on how students engaged with items and how their engagement was affected by the mode in which the test is delivered.

Psychometric analyses of test data compared the difficulty of each assessment item when it was presented in paper-based and computer-based modes. No changes were detected in the measurement qualities of student responses, for most of the items.

Qualitative observations drawn from invigilator and teacher feedback, as well as cognitive interviews with students, revealed that students generally engaged well with the new computer-based mode of delivery.

In 2013 ACARA conducted a range of research activities to examine:

- the proposed tailored test design for Reading and Numeracy;
- options for online delivery of the Writing domain and automated essay scoring;
- how online testing can better cater for students with disabilities;
- the potential for the proposed test design to provide a more appropriate testing experience for Indigenous students and students with socio-economic disadvantage;
- students' cognitive and behavioural engagement with the tailored test design; and
- the potential to broaden and enhance item types offered by digital technology.

The majority of field work for these research activities is complete and analysis and reports are being finalised. Preliminary findings were incorporated into advice to the Standing Council on School Education and Early Childhood (SCSEEC) in November 2013

#### NAP-CC

NAP-CC was administered online in October 2013 to a representative sample of year 6 and year 10 students. The assessment ran from 9 October to 13 November 2013. Almost 13 000 students participated in the study from 680 schools in all state and territory sectors. Implementation of NAP-CC online is being used to inform work towards delivering NAPLAN online, including in relation to school technology and test invigilation.

### 4. What are the expected implementation timeframes for this program of work?

Current timeframes are based on the provisional agreement by Education Ministers that NAPLAN online will commence in 2016. This is subject to further advice from

ACARA and jurisdictions that will inform a definitive decision in early 2014. Options for commencing in 2015 are also being explored by ACARA.

#### NOAC

The NOAC RFT process will be completed by February 2014. The system is scheduled to be developed by July 2014 in preparation for extensive User Acceptance Testing in the second half of 2014. A practice environment will be available from mid-2015 to enable teacher and student familiarisation ahead of a full-cohort trial in October 2015.

#### Online assessment research

ACARA's research activities are currently scheduled to be completed by mid-2014. The Department is currently considering a revised implementation plan that would see this work extend until mid-2015.

#### NAP sample assessments

Analysis and reporting on NAP-CC online will be finalised in early 2014.

The NAP Information and Communication Technology Literacy (NAP-ICTL) and NAP Science Literacy (NAP-SL) sample population assessments will be conducted online in 2014 and 2015 respectively.

5. Have any of these timeframes, or any part of this program of work, been agreed by State and Territory Ministers?

On 20 April 2012 SCSEEC approved the online delivery of the NAP-CC sample assessment in 2013 and on 3 August 2013 noted the work being undertaken under NASOP.

ACARA and the Australian Government presented a joint paper to SCSEEC on 7 December 2012 outlining the educational and measurement benefits, technical implementation considerations, approximate costs and savings, and proposed implementation options of moving deliver NAPLAN online.

SCSEEC agreed that NAPLAN should move online at an agreed date and adopted 2016 as a provisional target year to inform further detailed work in 2013.

6. Have any trials of online NAPLAN testing taken place? What are the details of those trials? How many students have taken part in each year of those trials?

See response to Question 3 above for descriptions of research activities.

The 2012 pilot study was conducted in approximately 125 schools. The following table shows the number of tests delivered for each domain year level for the 2012 pilot study.

<b>Year level</b>	<b>3</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>9</b>	<b>10</b>
Writing	381	345		425	373	
Reading	387	383		541	255	
Numeracy	413	409		577	298	
Civics and Citizenship			449			426

Note: Numbers reflect tests delivered, not individual students as most students sat tests in two domains.

During August-October 2013, ACARA conducted a field trial in 250 volunteer schools from all states and territories, including remote schools and a small number of home-based and geographically remote students. This trial yielded data applicable to several research projects.

The following table shows the number of tests completed in each domain and year level for the 2013 field trial.

<b>Year</b>	<b>3</b>	<b>5</b>	<b>7</b>	<b>9</b>
Writing	1081	1328	1135	977
Reading	2949	3106	1608	1699
Numeracy	3082	3205	1654	1773

Note: Numbers reflect tests delivered, not individual students as most students sat tests in two domains.

The following table provides a summary of 2013 research activities.

<b>Research activity</b>	<b>Schedule</b>	<b>Status</b>	<b>Students/tests</b>
Conduct the field trial investigating the proposed tailored test design in Reading and Numeracy	March – September 2013	Field trial completed, analysis in progress	Student numbers reflected in table above
Investigate the cognitive and behavioural engagement of students with the proposed tailored test	February – October 2013	Field trial completed, analysis in progress	85 students (drawn from field trial participants)
Conduct the field trial investigating the options for online assessment of Writing	March – September 2013	Field trial completed, analysis in progress	Student numbers reflected in table above
Investigate how online testing can better cater for students with disabilities	February – October 2013	Field trial completed, analysis in progress	20 students
Investigate the potential of the proposed test design to provide more appropriate testing experience for Indigenous students and/or students in remote communities	August – September 2013	Field trial completed, analysis in progress	Student numbers reflected in table above
Investigate the potential of the proposed test design to provide more appropriate testing experience for students with socio-educational	August – November 2013	Field trial completed, analysis in progress	140 students (undertaken separate to the 2013 field trial).

<b>Research activity</b>	<b>Schedule</b>	<b>Status</b>	<b>Students/tests</b>
disadvantage			
Design and conduct the study investigating options for automated essay scoring	March – September 2013	Field trial completed, analysis in progress	Student tests used from previous years. No students directly involved.
Investigate the potential to broaden and enhance item and assessment types offered by digital technology	September 2013 – January 2014	In progress	No students involved

7. How many students are expected to take part in future trials in each year?

In 2011, 11 000 students participated in NAP-ICTL and it is expected that a similar of students will participate in NAP-ICTL online in 2014.

In 2012, 13 000 students participated in NAP-SL and it is expected that a similar number of students will participate in NAP-SL online in 2015.

Numbers of students expected to participate in NAPLAN online item trialling in August-September 2014 are provided below, noting that each student is expected to complete tests from two different domains.

<b>Domains</b>	<b>Year Level</b>	<b>Total number of students</b>
Reading and Numeracy	3	2,800
	5	2,800
	7	2,800
	9	2,800

Approximately 1 million students are expected to participate in a full-cohort (years 3, 5, 7 and 9) trial of NAPLAN online in October 2015.