Overview of presentation

• A digital curriculum and resources
• NAP sample assessment program
• Moving NAPLAN online
  - objectives
  - tailored test design
  - research program
A digital curriculum and resources
Australian Curriculum

• A digital national curriculum
• Functionality, such as filters, allow flexible views across Years and learning areas
Digital technologies curriculum

- Students use computational thinking and information systems to define, design and implement digital solutions.
Digital resources

Resources to support the Australian Curriculum are delivered online
NAP sample assessment program
NAP sample assessments

• Delivering online assessments since 2013
  - NAP civics and citizenship in 2013
  - NAP ICT literacy in 2014
  - NAP science literacy in 2015
Moving NAPLAN online
Advantages of moving online

• NAPLAN online will provide **better assessment**, **more precise results** and **faster turnaround** of information.

• NAPLAN online will mean that the tests **better meet the needs of all** students, including those with a disability.

• NAPLAN online will use ‘**tailored testing**’ that gives students questions better suited to their achievement level, resulting in better assessment and **more precise results**.
Why computer adaptive testing?

Adaptive testing – more information can be obtained from a test if the test items match the achievement level of the student.

Computer adaptive testing (CAT) – test difficulty is adjusted after response to each item.

Multistage computer adaptive testing – test difficulty is adjusted based on responses to a set of items (testlets).

For large-scale assessments, multistage testing offers several advantages over CAT, including:

• better control over item content and exposure
• better control over structure and administration of the final test
• requires significantly fewer items to run and maintain the testing program.

Consequently, a multistage adaptive test design – the tailored test design – has been developed and proposed for future NAPLAN online tests.
Tailored test design

First branching point

Second branching point

A

D

B

C

E

F

Challenging items

Mainstream items

Easy items
ACARA research program

• Essential studies to move online
• Informed by best practice in Australia and internationally
• Therefore every study focuses on four key questions:
  – What does the research show?
  – What are the “lessons learned” in other programs?
  – How do these lessons apply to the Australian/NAPLAN context?
  – How do real students react when they sit for online items (cognitive interviews)
ACARA research program

- **Trialling study**: ensure all item types (traditional and innovative) work in the online environment
- **Device effect** study: no disadvantage laptop vs tablet
- **Fonts and readability** study: best layout for reading test (passages and items)
- **Accessibility** study: test fair for all students (SWDs, remote, etc.)
- **Autoscoring** study: need to demonstrate that computer can score NAPLAN writing as well as teachers
- Findings from the **NAP Sample** Program: place to test new item types and platform itself
Autoscoring

• Working towards reproducing the accuracy of similar research overseas

• Results of trials have been assessed according to two criteria:
  – whether the computer scores correlate to the human scores within the same margin as two different human markers
  – whether the scores generated by the computer distribute in the same way as an equivalent number marked by humans

• Trials show the artificial intelligence solutions perform as well, or even better than human markers
Key dates for transition to online testing

• **Mid-2016**: opt-in to online testing for NAPLAN 2017
• **2017**: first year of NAPLAN online (transition year)
• **2018**: second year of NAPLAN online (transition year)
• **2019**: NAPLAN delivered online nationally
NAPLAN online will provide better assessment, more precise results and faster turnaround of information.
Thank you