

# **Non-traditional Summative Assessment @ Stage 2**

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SATs are not necessarily tests!

# What does it take to lead the change in practice?

- Reasons - will to change
  - 'but these are fine'
- Time - planning, implementation
- Evidence - confidence to change
- Support and a place to start
  - Review and accountability
- What would the challenge be in your site?

# Why would teachers want to do this anyway?

Connections with other courses and assessment design

Development of capabilities and flexibility in using mathematical knowledge and understanding

Support and challenge for a range of students

Where are they likely to use maths out in the world? Other skills and capacities work with mathematical understanding

- How could you promote this type of thinking at your site?

# Example: Prac SAT

## Sports Shots (Methods)

For your binomials SAT, you will complete a “sports shots” practical and use the data to analyse binomial statistics. You will submit a scaffolded practical report with the following sections:

- A brief method outlining your chosen “shot” and how you collected the data
- Results, presenting both the expected results for a specific number of throws and the actual results. This section will include calculations for each result.

A discussion of the accuracy of using binomial statistical methods to predict results.

### **Design**

In pairs or threes, decide on a “sports shot” to use, with clear success and failure criteria. For example, a basketball goal (or miss), a frisbee throw into a target, a soccer goal, or a dart throw. The shot should be relevant to a sports game (eg basketball, ultimate frisbee, darts).

# Example: Prac SAT

## Fields of Glory (Spec)

Production of an experimental slope field, drawing of solution curves, and fitting a model solution to a sample.

See attached section.

Followed up with some standard questions on DEs.



# Example: Oral SAT

## Oral Presentation Task Sheet

The final Skills and Applications Task is your oral presentation. You will need to complete **two** of these: one for Methods and one for Specialist

You **nominate a date and topic** of your choice. On the date, you will be given a complex problem to solve. You will have **access to notes and calculators**, and will be given time to complete the problem(s). You will then **present your solution** and in particular, the **thinking and reasoning** behind it, orally. **Visual aids** (eg presentation slides, whiteboard, posters/paper) can be used to support your explanation. Your presentation should take **no more than 5 minutes**.

Feedback, ideas and discussions with the teacher are allowed during the problem-solving time, although obviously teachers cannot give students answers.

### Complex numbers |

- Using an Argand Plane, create an image of an animal.

### Applications of differential calculus |

- An elevator moves between different floors in a building. Describe, using language and mathematically, the motion of the elevator during two different time periods.

# Time

## Structures in school to facilitate

Planning time

Teaching teams

Flexibility with assessment timings

Common assessment group and hence tasks

Moderation processes

Explicit commonality between Methods, Spec

Working with other subjects for common skills

## Time spent by students - considerations

Classroom pedagogies can come through in assessment (eg dialogue)

Building independence in students for prep time - confidence to speak

Assessment conditions to create safe learning (and assessment) environments

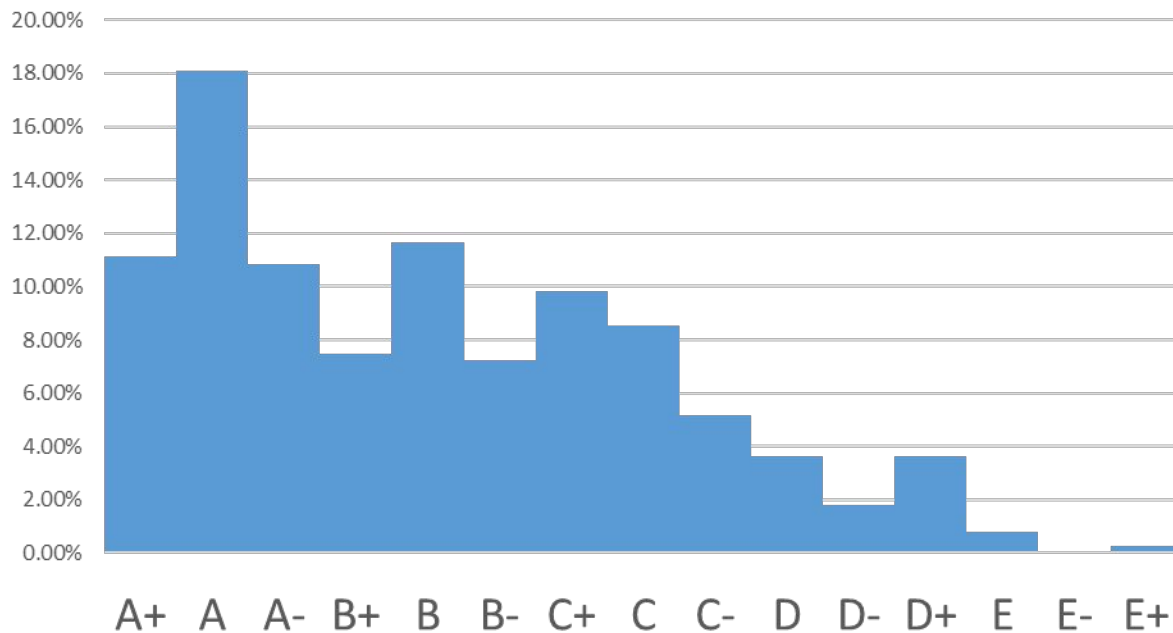
Student management of overall workload/stress (pros and cons)

# Evidence

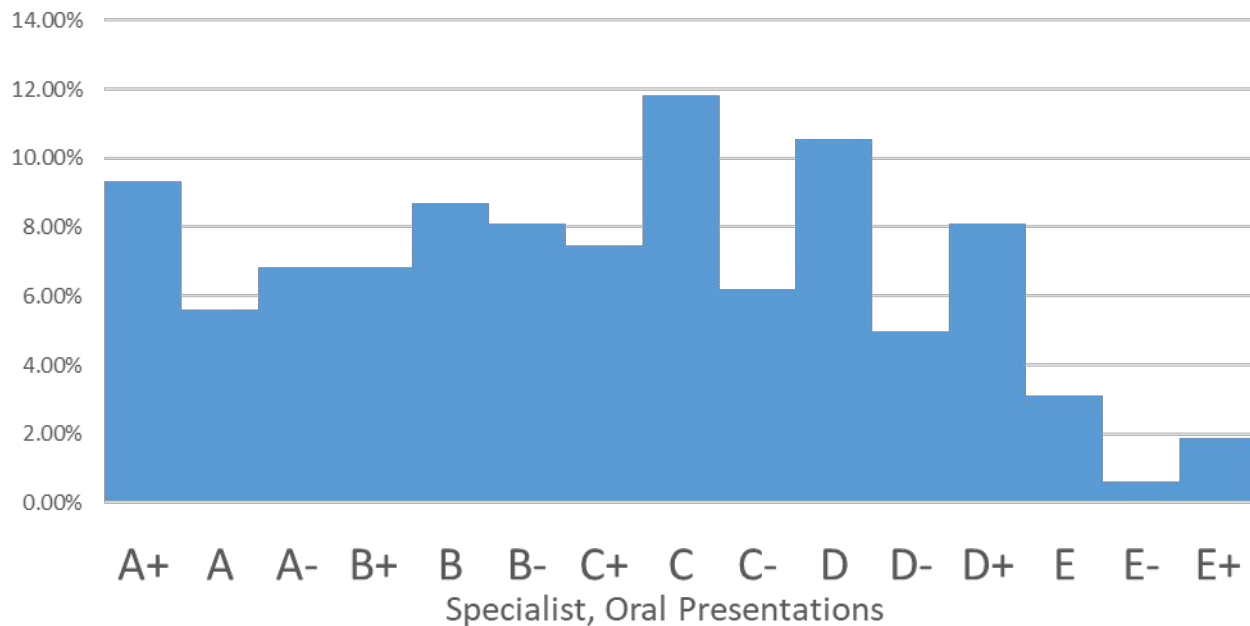
- Teachers' experiences
- Students (you will hear from them!)
  - Think of questions you would like students to answer
- Data - what happens in terms of SACE achievement?



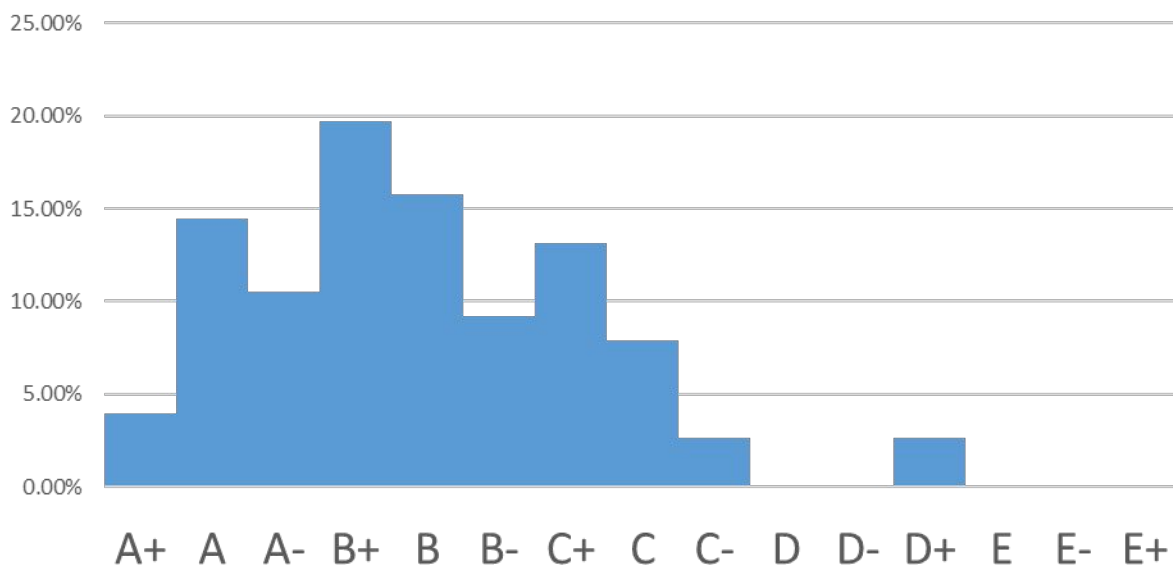
Methods, Test-Style SATS



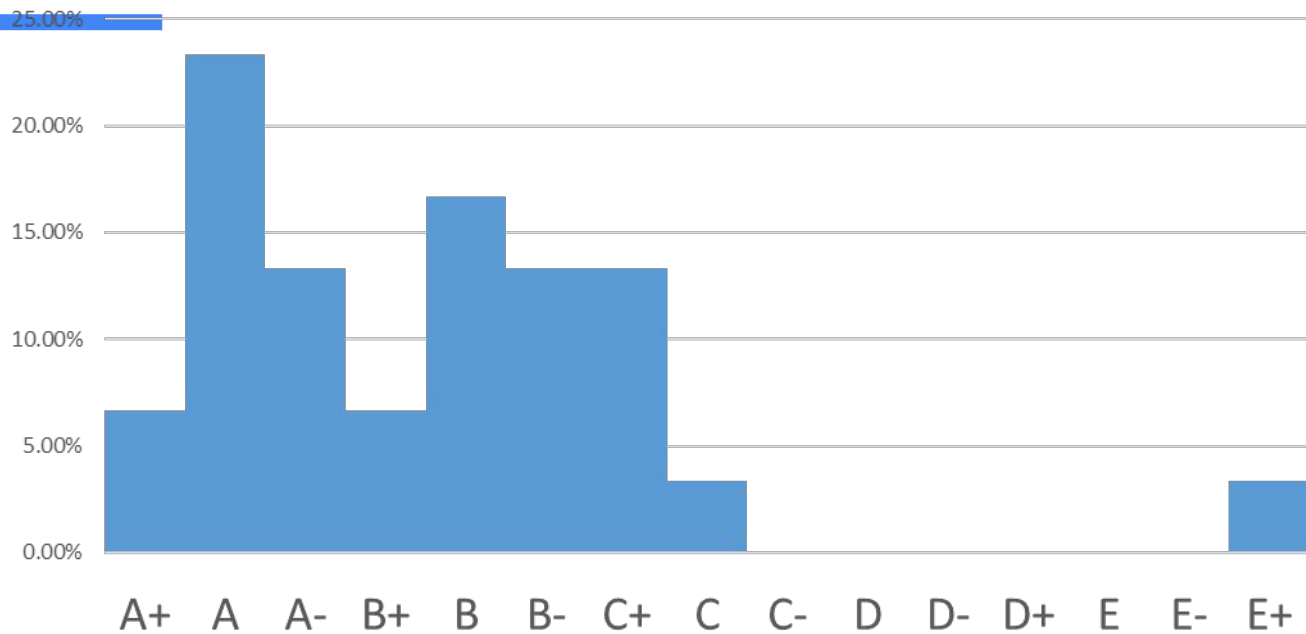
Specialist, Test-Style SATs



Methods, Oral Presentations



Specialist, Oral Presentations



# Support - where can teachers start?

- Interdisciplinary inspiration
  - Lots of different assessments used in other subjects and at other year levels
- Applicability to the world - who is using maths and for what?
  - eg AMSI Career resources
- Subject outline!
  - It's really flexible in its definition of a SAT (more so than investigation)
- Students
  - What do they bring? How can you harness their skills to show maths evidence?
  - How can you challenge and promote growth in your students?

# Support - where can leaders start?

- Interdisciplinary inspiration
  - Get teachers talking about assessment across traditional lines
  - Provocations - 'why not?'
- Data
  - Help your teachers to know their students
  - What have they done well in before? Where are there opportunities to help them grow?
- Vision for student learning
  - Help get people past the anxiety