

# First-year challenges



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# Today's talk is brought to you by ...

... the ACDS



... on a project funded by the Australian Government's Office for Learning and Teaching and the ACDS.



Australian Government



Office for  
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# BSc enrolment numbers

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- 2005 to 2014 – approximately 40% increase
  - B Advanced Science
  - B Mathematics

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# Challenges

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- Large numbers
- Diverse cohorts
- Background knowledge – prerequisites

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# What have we done at UQ?

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- *GetSet* diagnostic test – UQ & OLT grants
- <http://getsetforsuccess.org.au/>

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# Aims of *GetSet*

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- Is NOT to tell students how much they don't know / forgotten
- Is to gauge current mathematical / science understanding
- Is to tell students what maths/science is used in their courses so they can choose the appropriate courses – **feedback matrix**
- Is to identify at-risk students

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# What maths is in your course(s)?

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- What do you want to know?
  - Procedural vs conceptual understanding.
- With what do you think students struggle?
- When are you going to do the test?
- Post-test? End of first-year test? Major test?
- **What are you going to do with the info from the test?**

**QS in Science** – [www.qsinscience.com.au](http://www.qsinscience.com.au)

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# Extra bonuses!

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- Cross-disciplinary connections
- Curriculum reviews
- Knowledge of high school syllabi



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# GetSet for Science OLT grant

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- Led by UQ, involving Melbourne, Sydney and Deakin
- <https://getset.science.uq.edu.au>

(GUEST ACCESS AVAILABLE – Semester 2, 2015)

- 19 maths/statistics questions
  - All MCQ
  - **Can't remember & never seen before options**

# BSc students' feedback

## Semester 1, 2015

<b>Did you find this quiz useful?</b>	
Yes, it gave me an insight into the knowledge that I need for 1st year	60%
Yes, it flagged some things that I have forgotten and need to review	79%
Yes, I feel that this is the beginning of my journey of studying science at UQ	30%
Yes, it made me feel that my needs are being assessed	25%
No, it achieved none of the above	3%
<b>I'm glad I did this quiz because now ...</b>	
I'm not glad that I did completed the quiz	8%
I have a better idea of what I know and what I don't know	73%
I feel more confident	24%
I have a better understanding of first year knowledge expectations	58%

# BSc students' feedback

## Semester 1, 2015

### As a result of this quiz, I will

Revise my high school notes	70%
Find a relevant text book	30%
Ask someone who knows for help	24%
Do nothing because I did well	12%
Do nothing because I will pick it up during semester	12%

### I disliked doing the quiz because

N/A - I didn't dislike it	41%
It was stressful	8%
It didn't help	4%
I forgot a lot of what I knew during the holidays	44%
It scared me	16%
I was still in a holiday mode	37%
It was time consuming and boring	6%

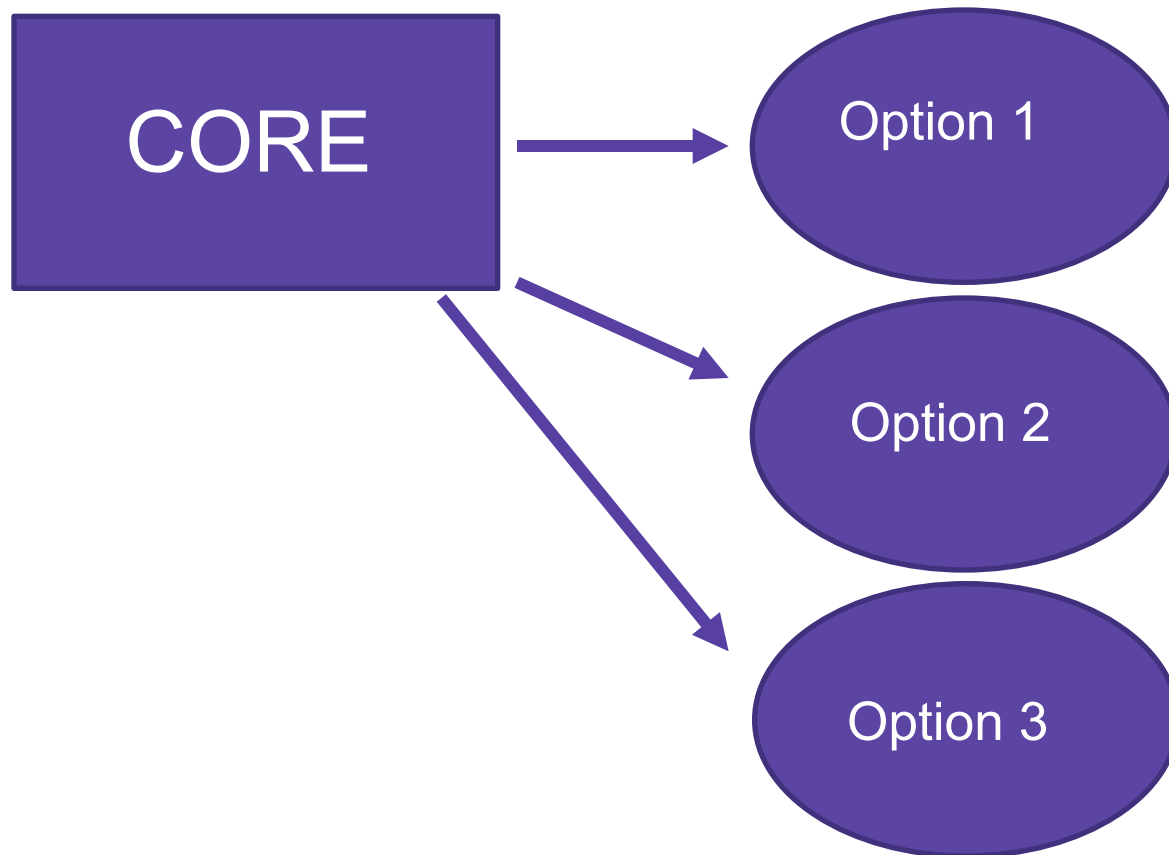
- I'm curious about how my score on this quiz compares to others.
- While taking this quiz, I worked as hard as I could.
- I gave this quiz my full attention

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# **GetSet** - <https://getset2.uqcloud.net/>

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## Core questions AND options



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# Options

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- Maths
- Chemistry
- Physics
- Maths/Physics
- Chemistry/Physics
- Biology
- Biomed
- I haven't decided

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# Challenges of *GetSet*?

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You need:

- TIME
- Question design
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<http://getsetforsuccess.org.au/>

<https://getset.science.uq.edu.au>

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# Acknowledgements

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<http://www.olt.gov.au/project-get-set-success-using-online-self-assessments-motivate-first-year-engineering-students-engag>

**The feedback matrix** was designed by A/Prof Lydia Kavanagh (Faculty of Engineering, Architecture and Information Technology), Dr Liza O'Moore (School of Civil Engineering).



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