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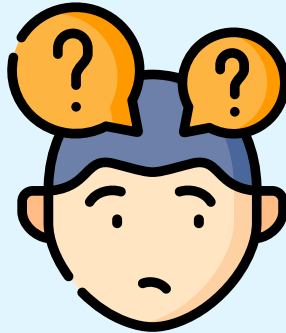
# Hybrid assessments

Student outcomes and experience

# What are Learning Outcomes?

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- A statement of threshold attainment for a pass?
- Threshold attainment for a First?
- Some mixture of these?



# 'Pass the module' re-imagined

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- Pass-level skills
  - Core mathematical skills are mostly routine and calculation-based
  - These can (in this instance) be marked by a computer
- Higher-order skills
  - These involve more conceptual work, showing workings-out, explaining reasoning
  - Necessitates paper-based assessment

# Why am I marking so many resits?

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- Reduce marking burden per resit
- Reduce number of resits **without** sacrificing standards



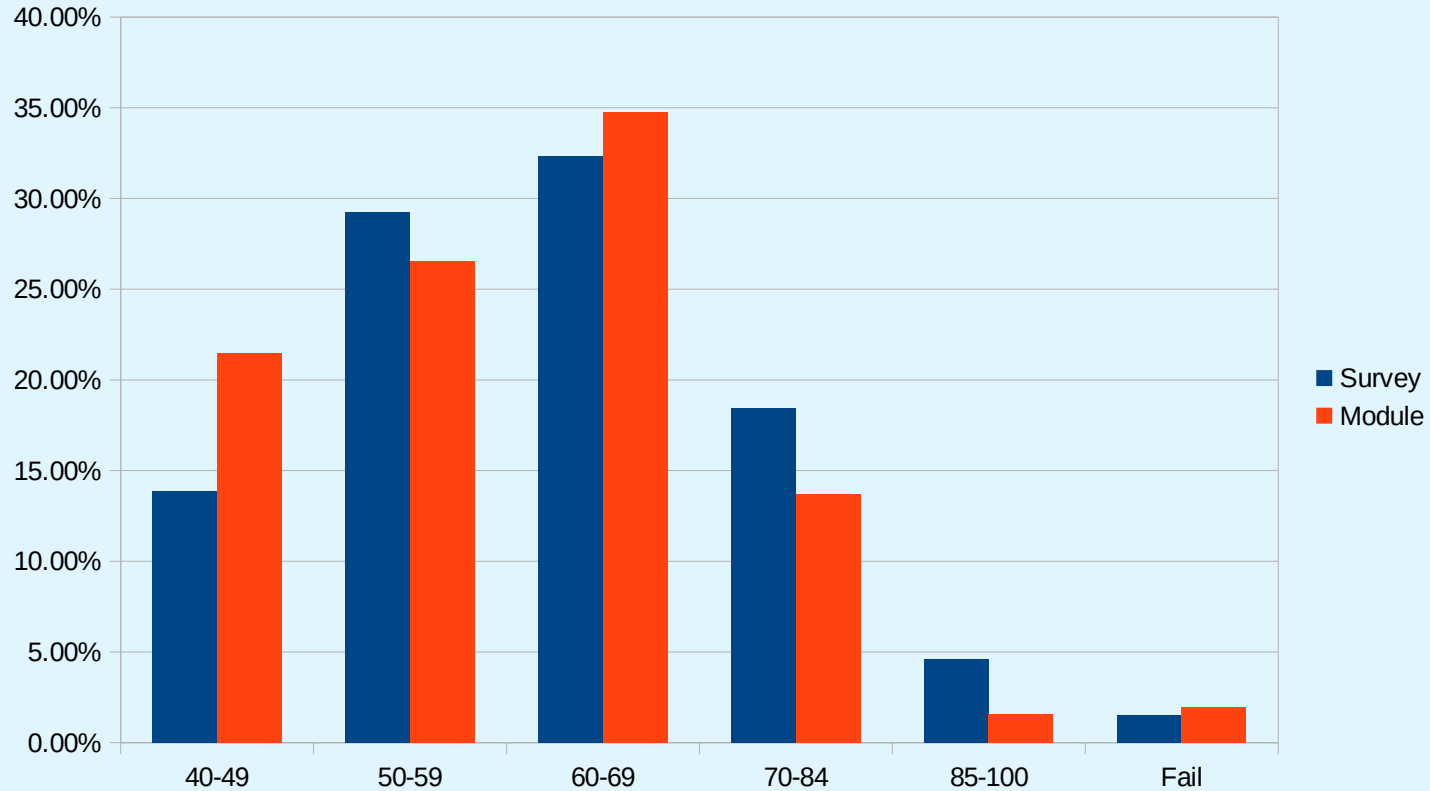
# What did I do?

	'Pass-fail' assessment	Written assessment
System	Dewis	Gradescope
Attempts	1,000	1
Marking	Automated	Manual
Included in second attempt	Yes	No
Marking basis	All-or-nothing	Out of 60
Contribution to mark	Pass or fail	Subject to pass, mark between 40 and 100
Content	Basic skills	Very challenging, conceptual material

# Student outcomes: assessment results

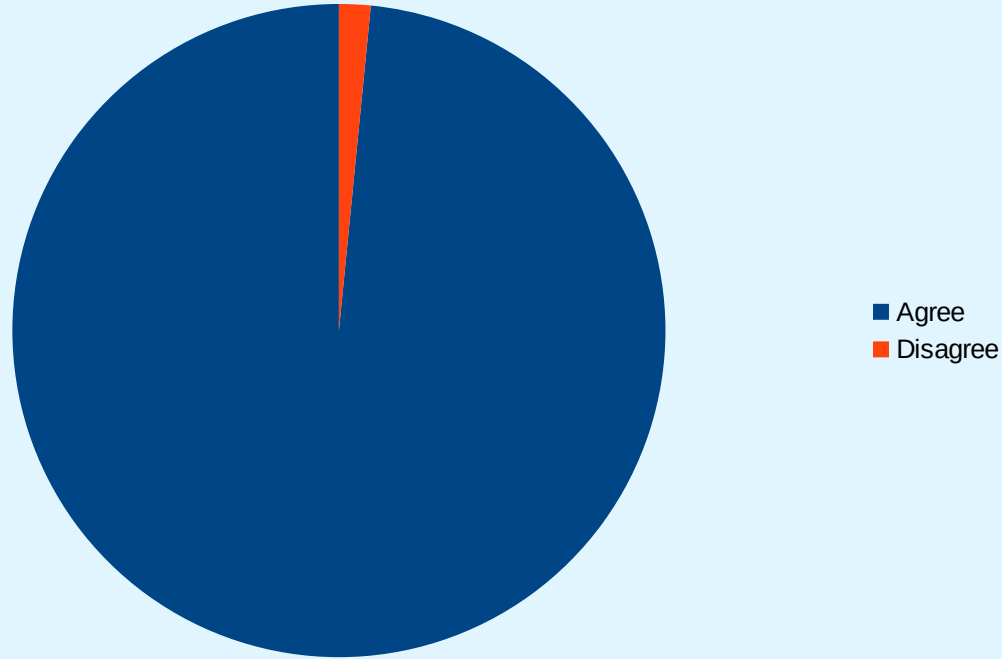
		2018 / 19	2019 / 20	2020 / 21
Calculus	AB	3.5%	3.0%	4.4%
	Fail	7%	41%	6%
	Mark	63%	44%	59%
Linear algebra	AB	3.5%	3.0%	4.4%
	Fail	12%	24%	25%
	Mark	60%	56%	57%

# Student experience: survey ( $n = 65$ )



## Student experience: survey ( $n = 65$ )

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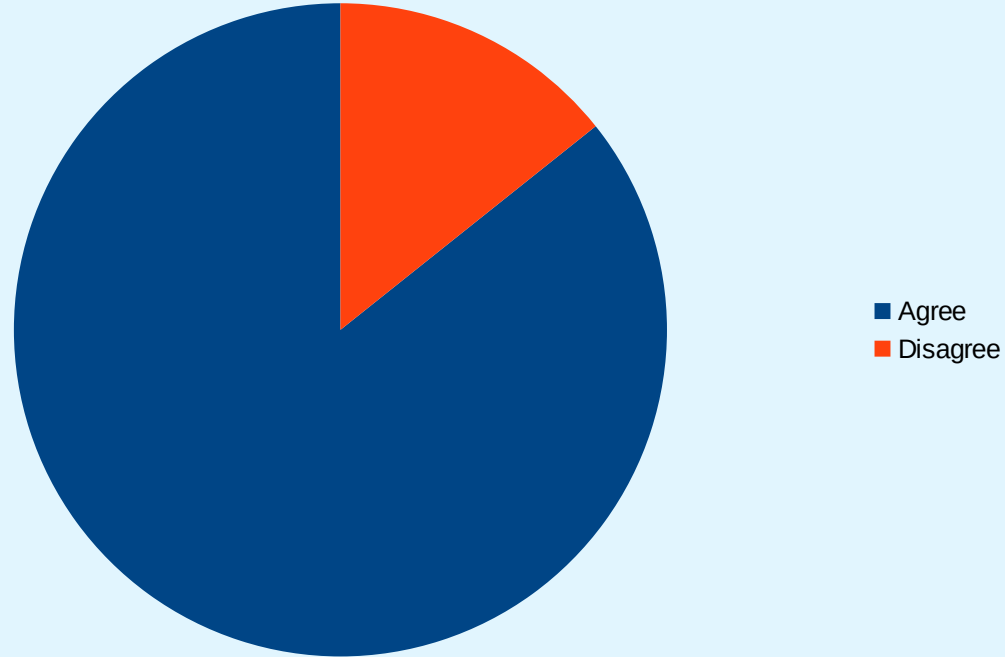


I would like to have more end-of-semester assessments that contain components where I can know that I have secured a pass mark.



## Student experience: survey ( $n = 65$ )

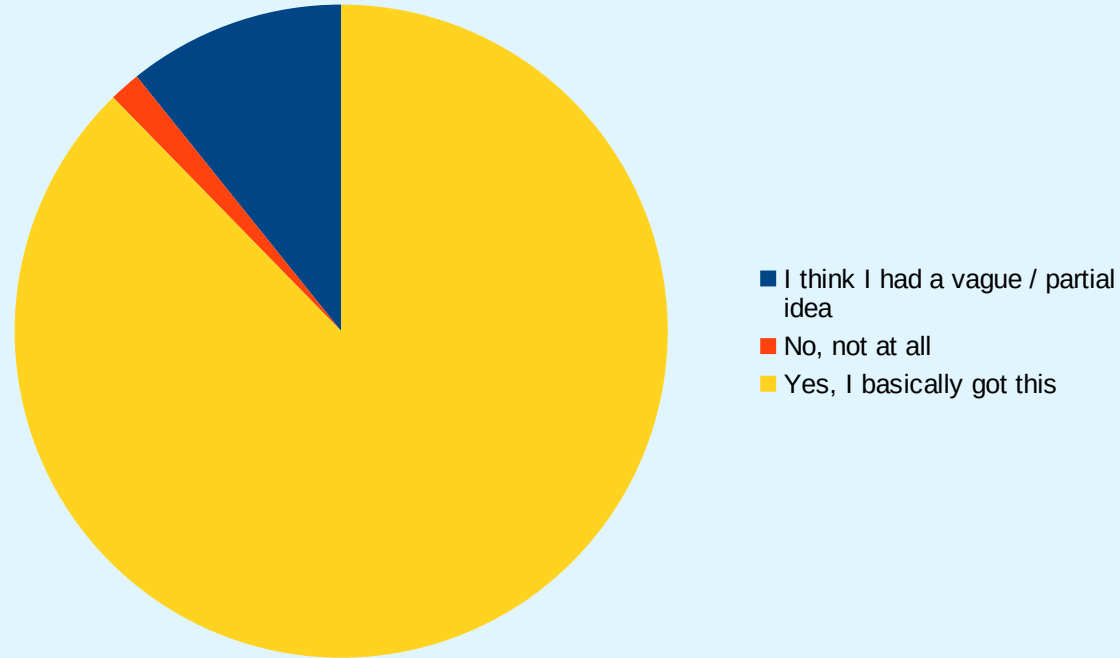
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Relative to the paper assessment, it was more help for consolidating my skills.

## Student experience: survey ( $n = 65$ )

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By the time you were taking the assessment, do you feel that you understood how the Dewis assessment would contribute to your overall score on the module?

# Student experience: survey ( $n = 65$ )

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- Comments principally focussed on calming of nerves and building of confidence
  - “more confident” (12), “relaxed” (5), “less stress” (9), “calm” (3), “less pressure” (2), “at ease” (2)
- Some mention of input format
  - Students did have practice opportunities during semester!
- Some comments mentioned changes to assessment strategy
  - Focussing on the other strand of the assessment, where passing was uncertain
  - Ignoring questions that were too difficult
- Some comments noting the written part was very challenging

# Conclusions

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- Hybrid assessment is effective in marking reduction, with gains to student experience and student perceptions of learning
- Signpost, signpost, signpost!
  - Early flagging, revision week video, follow-up email, information in assessment folder.
- Further follow-up work is needed to see whether it has had longer-term effects on student learning

# Thank you all!

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