How do our students revise?

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Section 1

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Student revision practices

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- How did you revise for your exams?
- Is exam revision distinct from other contexts for learning?
- How can our students revise better?
- How can we support better revision?
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Student revision practices

- How did you revise for your exams?
- Is exam revision distinct from other contexts for learning?
- How can our students revise better?
- How can we support better revision?
Evaluating revision practices
Theory and experience

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Theoretical Are you a classicalist, a cognitivist, a constructivist, a something-else-ist?

Empirical Students are strategists!
(Particularly around exam time.)

Conclusion General theories of learning may not be well-suited to the revision context.
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**Theoretical**  Are you a classicalist, a cognitivist, a constructivist, a something-else-ist?

**Empirical**  Students are strategists!

(Particularly around exam time.)

**Conclusion**  General theories of learning may not be well-suited to the revision context.
Evaluating revision practices
Lacking literature?

Degree class  A predictor of graduate employment outcomes.
            A proxy for educational outcome more generally.

Closed-book exams  A mainstay of mathematical assessment.

Revision strategy  A chief component of student success.

So understanding student revision would be useful!
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Evaluating revision practices
Academic assumptions?

How did you revise?
How do you think your students revise?
How do you think they *ought* to revise?
Section 2

The study design
Study cohort

First year
Joint honours
Differential equations module
Variety of disciplines
Sources of data

- **Student behaviour (quantitative)**
  - Online assessment access data
  - Video capture access data
  - Maths Support Centre data
  - Lecturer experience

- **Student self-evaluation (qualitative)**
  - Short survey on use of revision materials \((n = 17)\)
  - Email interview probing emerging themes \((n = 2)\)
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Research staff

Supervisor  Philip Walker, lecturer on module

Student researcher  Sonia Hussain, 3rd year Maths

One aim of having a student researcher was to put some distance between the lecturer and the study.
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Section 3

Study outcomes
Plenty of expected results
High use resources

- Lecture notes
- Past papers and example sheets
- Online assessment
- Online resources
Plenty of expected results

Lower use resources

- Textbooks
- Peer-assisted learning
- Lecturer office hours / email
- Maths Support Centre
A noticeable fraction of student accesses to lecture capture occur late night / early morning immediately before the exam.

This was not seen with online assessments.
Some predictable results

- Resources’ perceived utility correlates well with use (except for lecturer contact)
- Students often revise in groups
One interesting result

- One student explained in detail how they used textbook and web resources differently.

> If a webpage is useless for you because you do not understand the procedure, you can go through another. In a book, you cannot do that. However, to find examples and exercises, I think a textbook is easier.
Section 4

Tentative suggestions for practice
Maths Support Centre

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- Improved signalling for Maths Support Centre from Maths staff.
- How do students in School of Maths modules feel about using the MSC?
Supporting revision with exercises

- More examples and solutions.\(^1\)
- Groupwork problems for revision.

\(^1\)What's new...?
Choosing and explaining resource lists

- Think about how your students might use the resources on your lists.
- Consider choosing textbooks for their exercises, and recommending websites for their expositions.
Section 5

Future directions
Projects raised from this study

- Increase quality of data by increasing depth of sample.
- Is Google killing textbooks?
- What are the seven revision habits of highly effective students?
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Section 6

Conclusion
I am interested in collaborating to get better data from a wider population.

Some of our practices are worth revisiting in order to support student revision.

Don’t assume students revise the way that you did / would!
Thank you for listening!

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