Research Skills Class 3:

How to read a science paper

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Submission reminder

- The project bibliography in NPS40012 is due to be submitted by Friday this week (full credit will be awarded)

- Please also share the bibliography with your supervisor

Portfolio item 2: project bibliography

Start Assignment

Due Friday by 23:59 **Points** 10 **Submitting** a file upload **Available** 24 Feb at 23:59 - 26 Mar at 23:59

For this portfolio item, please **upload the bibliography** you have prepared for either the project literature review (for Semester 1 intake students only) or for your Thesis (for Sem 2 intake students only).

The bibliography does not need to be the final version appearing in your report, but should contain at least 10 relevant journal articles for your work.

Full credit will be awarded when this item is submitted. Please also share this item with your supervisor for feedback.

The deadline for submission is the end of **Friday 21 March (Week 3)**.

Why do we read science papers?

- Understand how our work relates to previous research in the field

- Find ideas for methods or future investigations

- Improve our scientific writing by seeing examples

- Provide relevant references in our own writing

Setting the right expectations

Your supervisor sends you an incomprehensible paper to read … what do you do next?
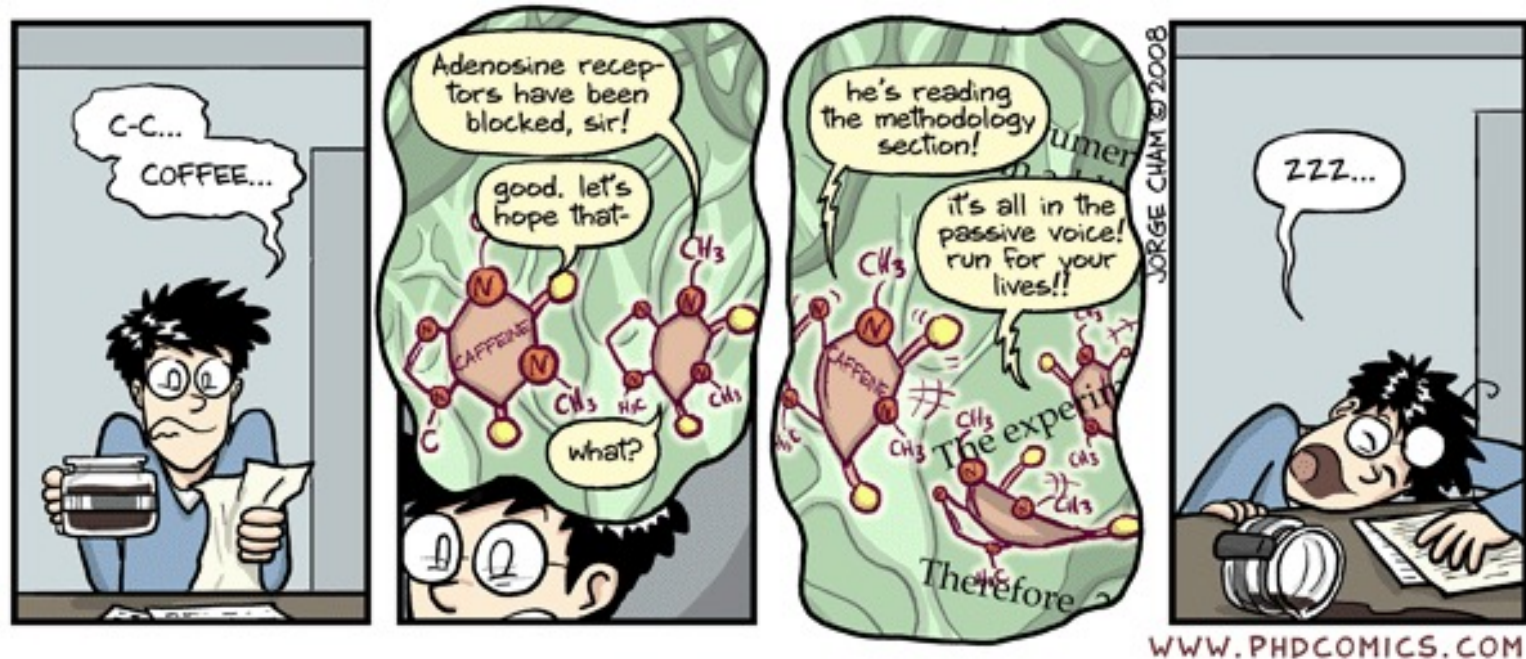
Setting the right expectations

- You do **not** need to understand everything in a paper

- Read **actively** (notes, highlighting, questions)

- **Re-read** your key papers as your project develops

What details should you focus on?

- **Do not read a paper from the beginning to the end**. You will probably get lost in the details and lose focus!

- Focus on key aspects of the paper that will help you understand the essential goal and result

What details should you focus on?

1. Identify the big overarching question of this field

2. Identify why this particular paper was written

3. Identify the specific question(s) the paper addresses

4. Identify the basic approach (what data and method?)

5. Describe the basic results

6. How do the authors interpret the results?

Where can you find those details?

- **Abstract**: should give you an overview of the aim, method, results and conclusion of the paper

- **Introduction**: should describe the general background and motivation in a more comprehensible way

- **Conclusion**: should briefly summarise the key outcomes of the paper, and their significance

- **Key results figure**: see if you can identify a single key summary plot in the paper. What is shown on the axes? How does it relate to the paper's conclusion?

How to take notes

- Taking notes or ==highlighting== helps you **read actively** and **retrieve the information** more efficiently

- Many software tools are available to help you. An example is Obsidian (https://obsidian.md)

- I recommend **only highlighting the key information**. Many people highlight too much, making it harder to identify the most important aspects later.

- **Write down questions** on aspects you currently find confusing, for both your future self and supervisor!

Activities

- Now, try reading a key paper in your project

Be ready to tell us:

- What is the key result of this paper?

- How does it relate to my own project?

- How have I captured or highlighted this information to use later?

That's all for today!