Thesis Writing
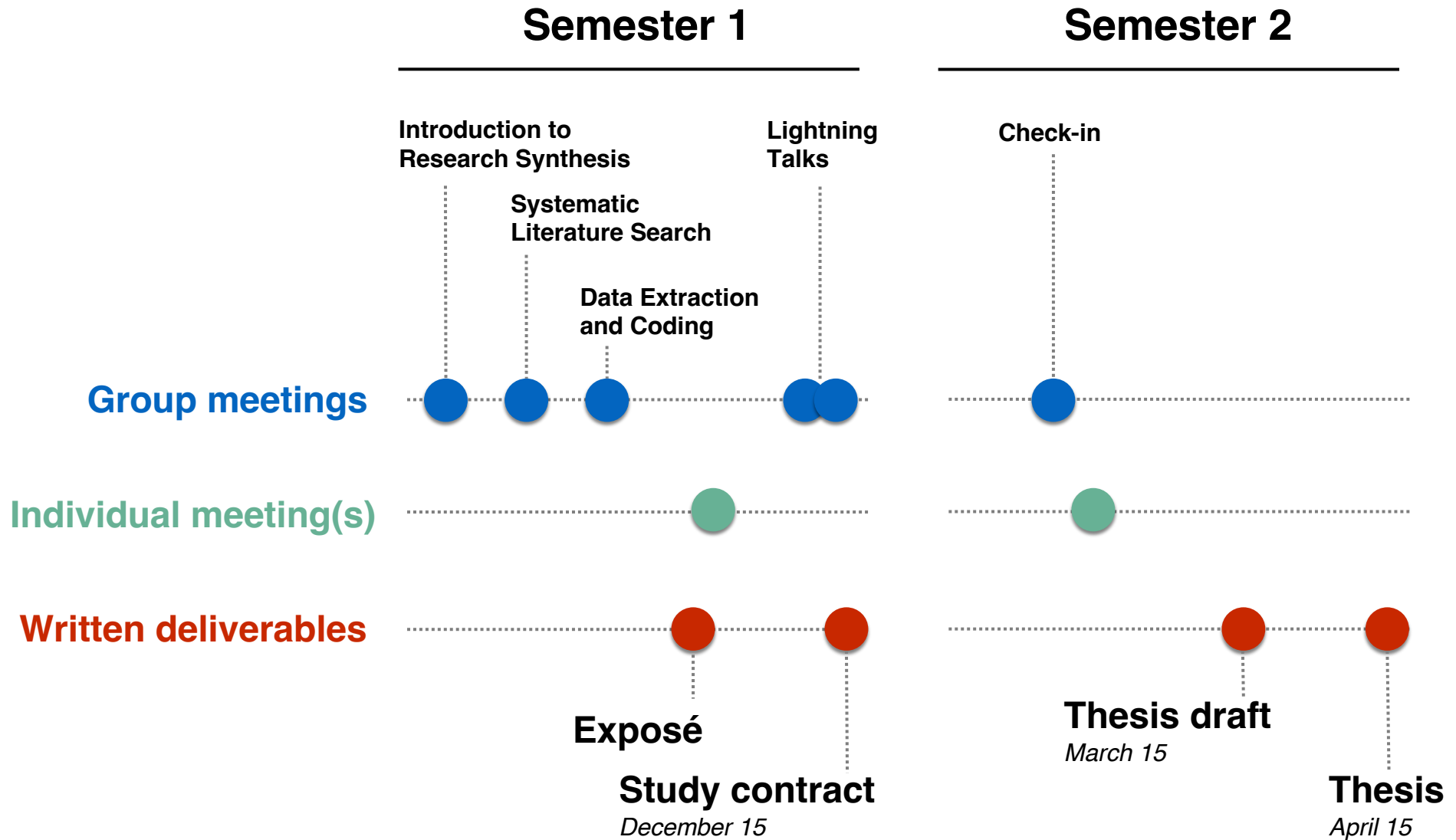
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Agenda

1. Timeline (2 min)

2. Thesis writing (15 min):

      - templates & components

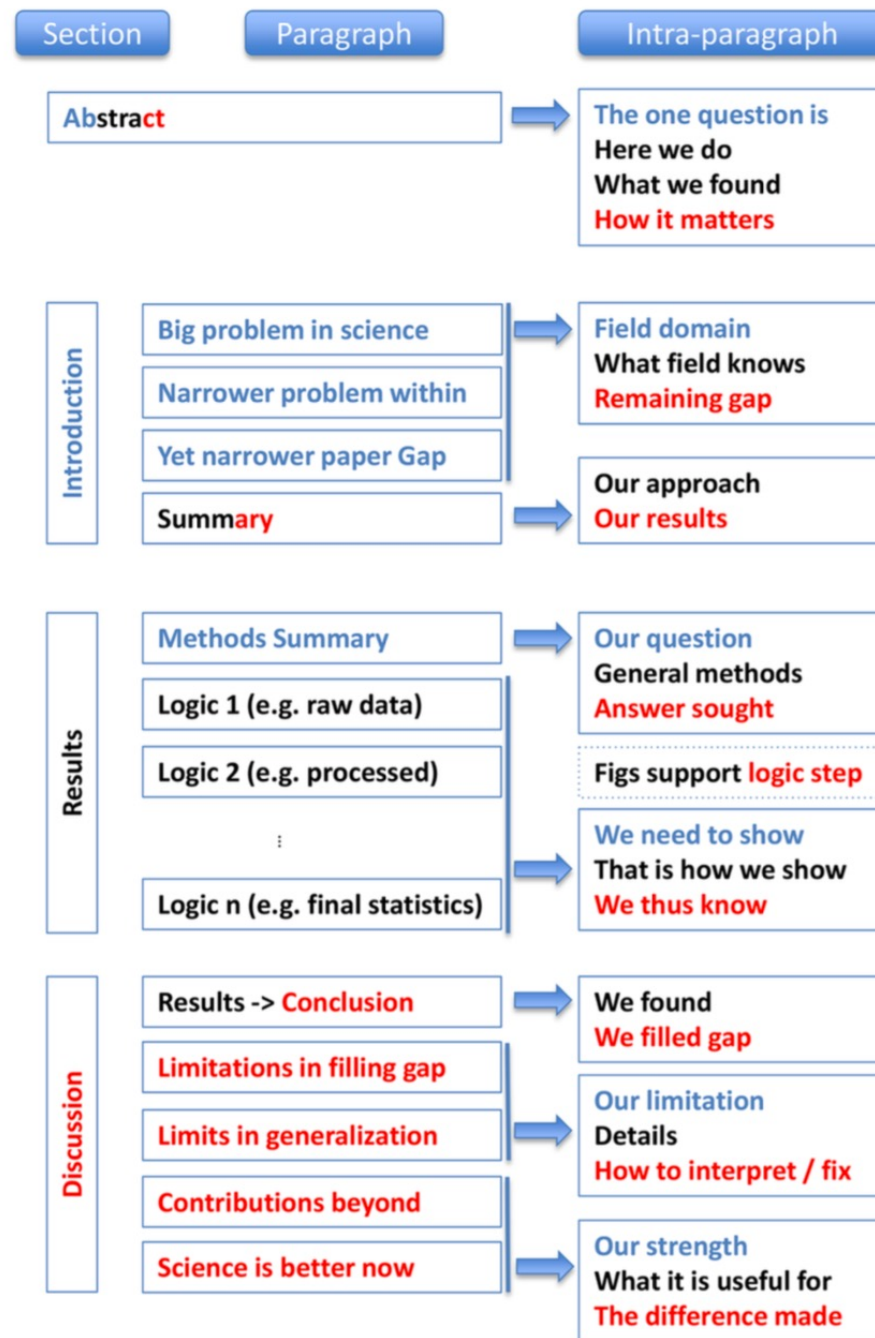   - writing tips & tricks

3. How are you doing? (60 min)

Timeline

Semester 1

Semester 2

Introduction to Research Synthesis

Systematic Literature Search

Data Extraction and Coding

Lightning Talks

Check-in

Group meetings

Individual meeting(s)

Written deliverables

Exposé

Study contract
December 15

Thesis draft
March 15

Thesis
April 15

Templates & Components

Our tips & tricks…

1. Divide and conquer (make outlines)
2. Write short, clear sentences
3. Help the reader by being predictable (be formulaic, use the same structure across paragraphs, enumerate)
4. Write around key tables and figures
5. Don't assume that Zotero references are automatically correct
6. Use ChatGPT as a critical reviewer not a co-author

Section	Paragraph	Intra-paragraph

Abstract → The one question is / Here we do / What we found / **How it matters**

Introduction
- Big problem in science → Field domain / What field knows / **Remaining gap**
- Narrower problem within
- Yet narrower paper Gap
- Summary → Our approach / **Our results**

Results
- Methods Summary → Our question / General methods / **Answer sought**
- Logic 1 (e.g. raw data) → Figs support **logic step**
- Logic 2 (e.g. processed)
- ⋮
- Logic n (e.g. final statistics) → We need to show / That is how we show / **We thus know**

Discussion
- Results -> **Conclusion** → We found / **We filled gap**
- **Limitations in filling gap**
- **Limits in generalization** → Our limitation / Details / **How to interpret / fix**
- **Contributions beyond**
- **Science is better now** → Our strength / What it is useful for / **The difference made**

Mensh, B., & Kording, K. (2017). Ten simple rules for structuring papers. (9): e1005619.
https://doi.org/10.1371/journal.pcbi.1005619

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Table 1. A summary of the ten rules and how to tell if they are being violated.

Rule	Sign it is violated
1: Focus on one big idea	Readers cannot give 1-sentence summary.
2: Write for naive humans	Readers do not "get" the paper.
3: Use context, content, conclusion structure	Readers ask why something matters or what it means.
4: Optimize logical flow	Readers stumble on a small section of the text.
5: Abstract: Compact summary of paper	Readers cannot give the "elevator pitch" of your work after reading it.
6: Introduction: Why the paper matters	Readers show little interest in the paper.
7: Results: Why the conclusion is justified	Readers do not agree with your conclusion.
8: Discussion: Preempt criticism, give future impact	Readers are left with unanswered criticisms and/or questions on their mind.
9: Allocate time wisely	Readers struggle to understand your central contribution despite your having worked hard.
10: Iterate the story	The paper's contribution is rejected by test readers, editors, or reviewers.

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if you use AI…
Follow the guidelines for citing AI

Documentation table (example)

KI Tool	Use	Affected Sections
DeepL	• Translate quotations from German	Entire document
ChatGPT (version 4o)	• Conceptualization • Spell checking	Entire document
Copilot	• Code suggestion	Methods and results