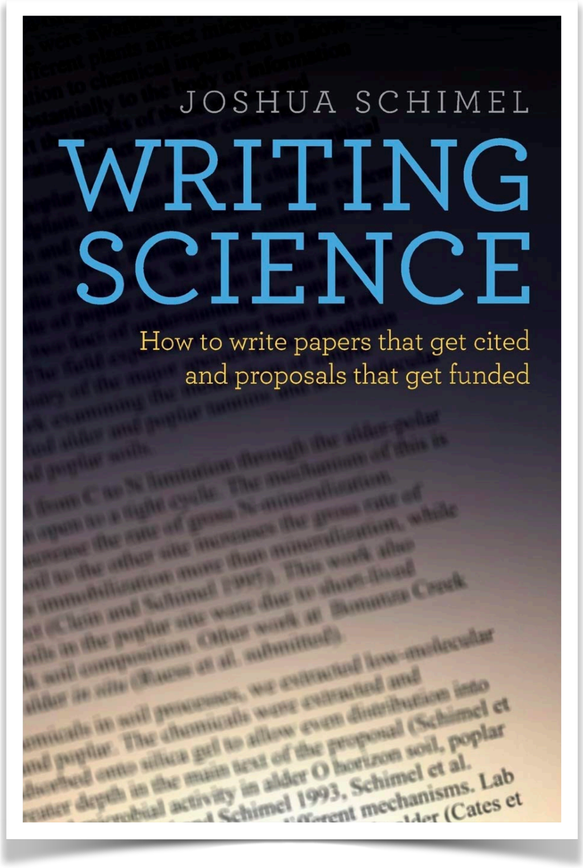
Scientific Writing in the EAS Dept

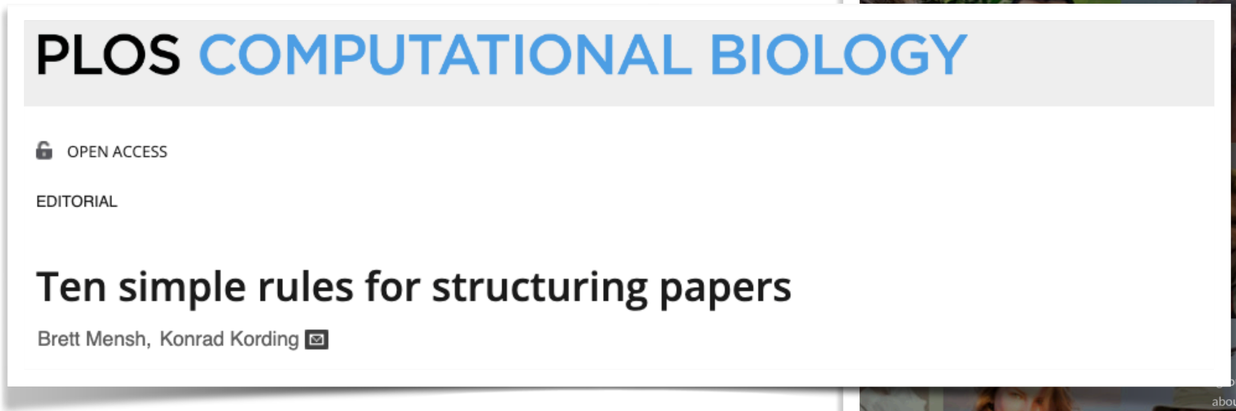
Writing effectively, giving & receiving feedback, general admin…

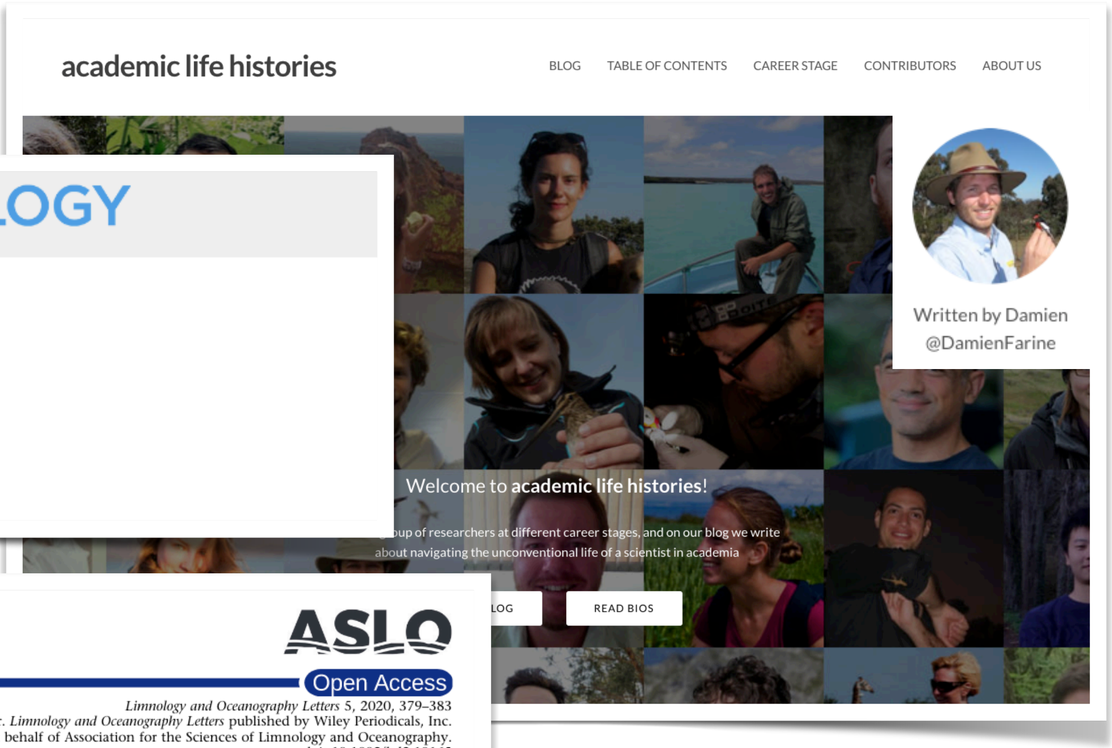
Day 2; 22 June 2022

Scientific Writing

The writing of science for scientific audiences







Overarching objectives

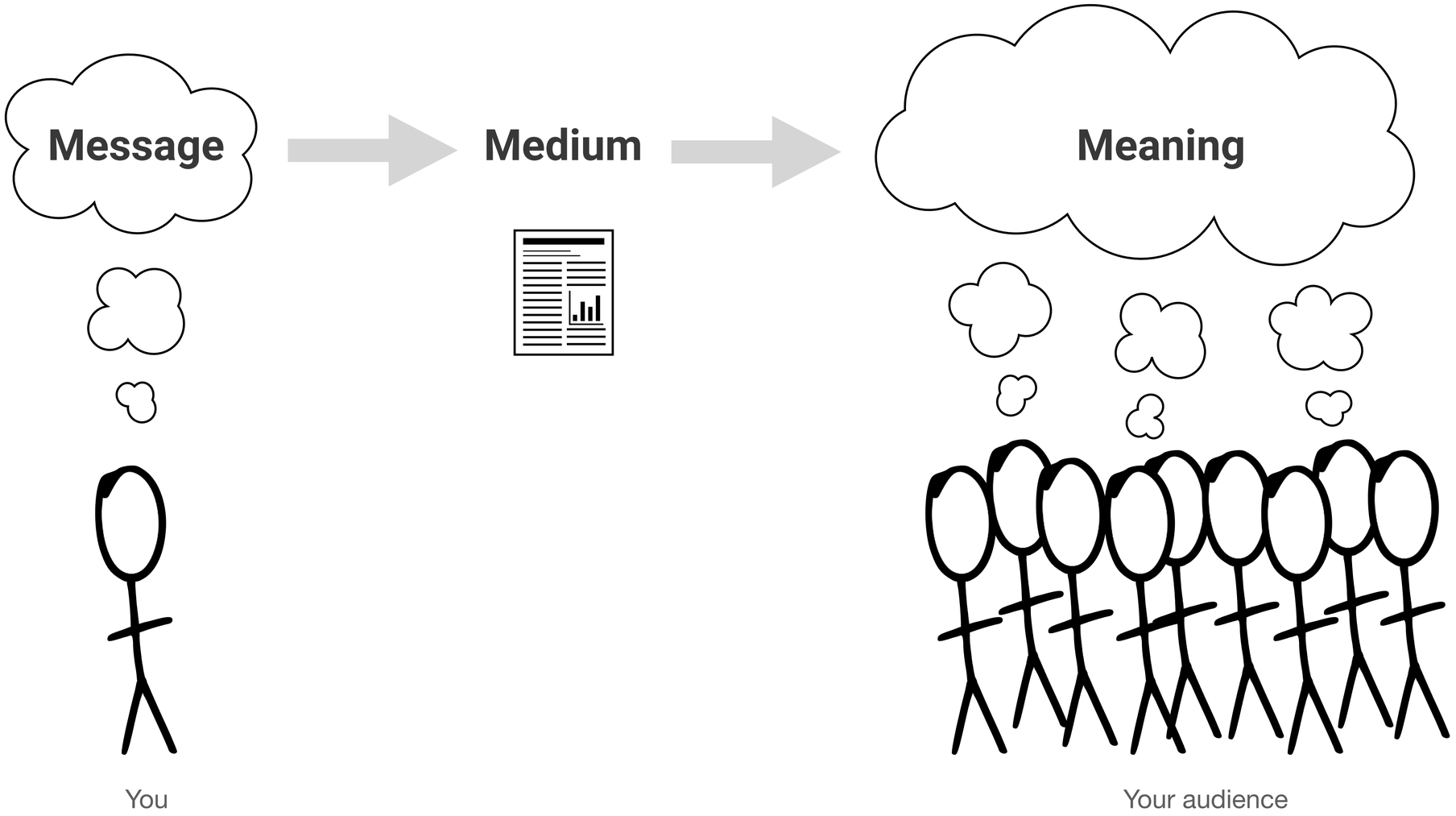
Our papers are written effectively

We habitually exchange feedback on written work

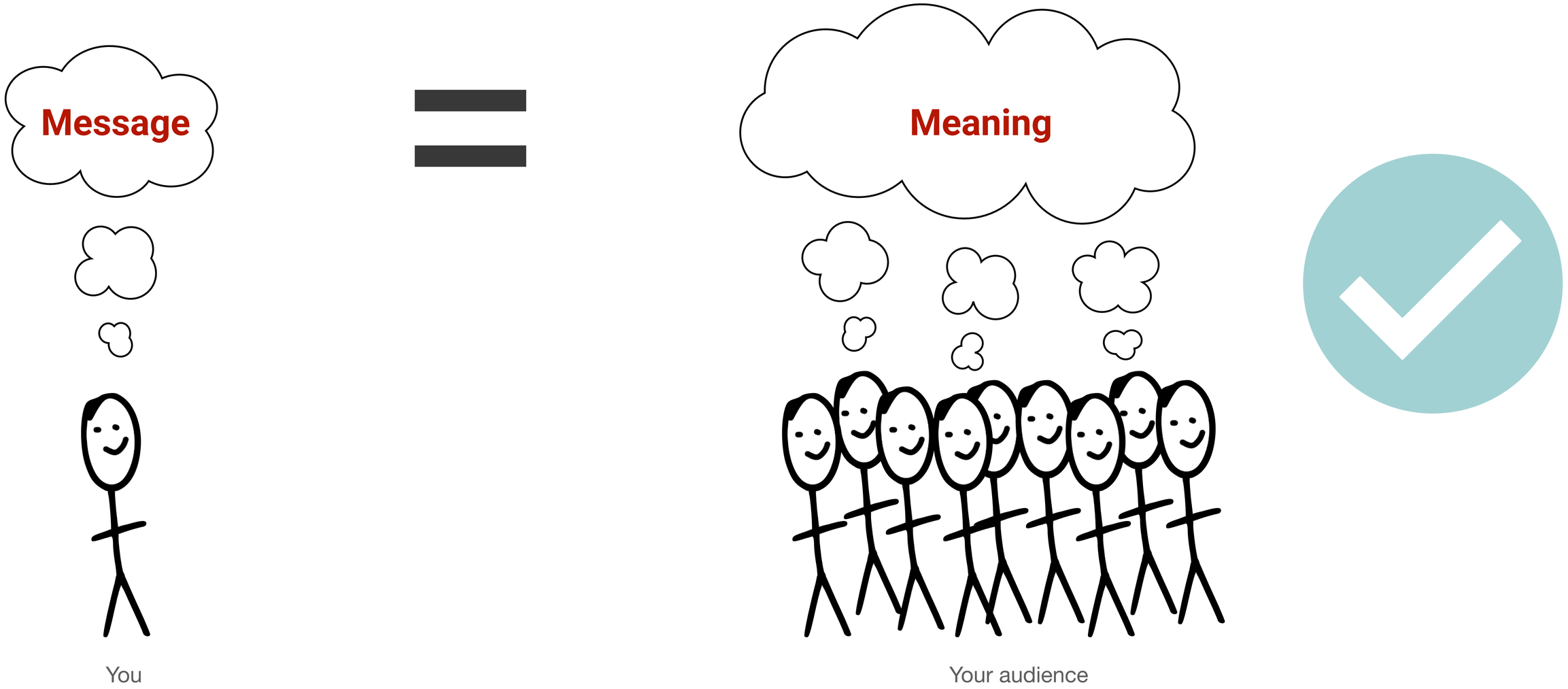
We have a shared set of guidelines for basic publishing admin

Our papers are written effectively

What constitutes effective scientific writing?



What constitutes effective scientific writing?



If your audience can easily understand your message, you have written effectively.

Two aspects of effective writing

Last time!

Starting here today!

The mechanics of effective writing

- Content
- Structure
- Language

The mentality of effective writing

- Mindset
- Approach
- Workflow

The mentality of effective scientific writing

Add your thoughts on google slides #2 & 3

- Mindset
- Approach
- Workflow

- What should you keep in mind as you write?
- What are good ways to approach/start writing a paper?
- What are good practices to adopt while writing?

Mindset

Take writing seriously [Hotaling 2020]

- Set aside time to write each day
- Seek opportunities to learn & improve your writing

Write to communicate - keep your audience in mind

- Each word, phrase, sentence, and paragraph should be chosen and crafted to convey a specific message to your audience
- Don’t lose sight of your audience in the Methods & Results
- If you have questions about your audience, ask or investigate!

Approach

Distill your main message

- Find an
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- If you c
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- Write y
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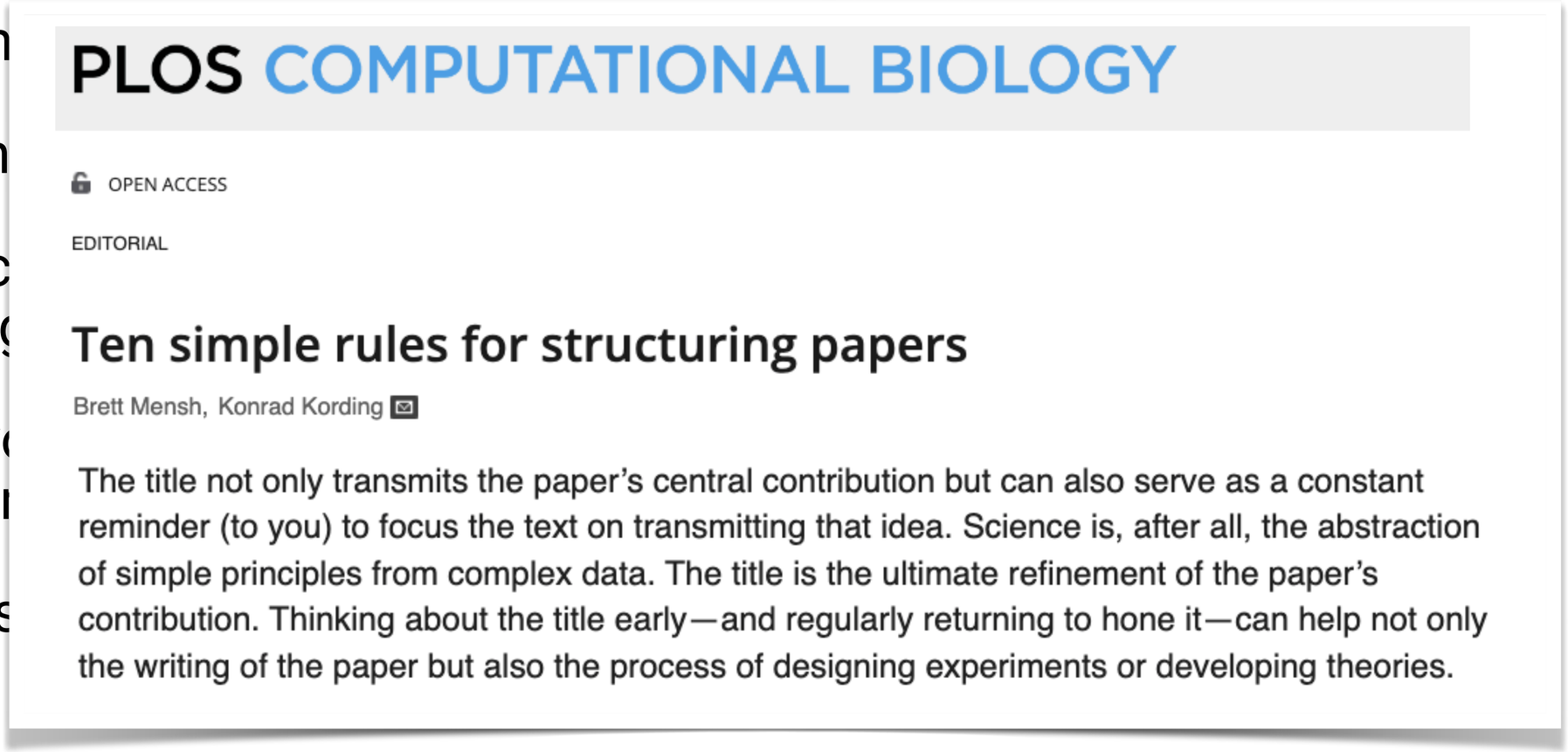
- Put this



PLOS COMPUTATIONAL BIOLOGY

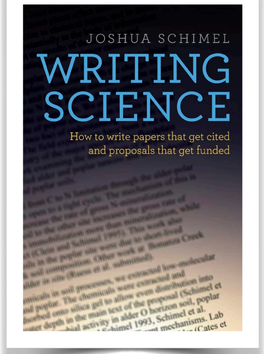
OPEN ACCESS

EDITORIAL

Ten simple rules for structuring papers

Brett Mensh, Konrad Kording

The title not only transmits the paper's central contribution but can also serve as a constant reminder (to you) to focus the text on transmitting that idea. Science is, after all, the abstraction of simple principles from complex data. The title is the ultimate refinement of the paper's contribution. Thinking about the title early—and regularly returning to hone it—can help not only the writing of the paper but also the process of designing experiments or developing theories.



Approach

Start writing once you have a clear idea of these 3 core components:

1. The logic and sequence of ideas for the introduction,
2. The key sections of the methods and results, and
3. The main conclusions of the study (i.e. the ‘take home’ messages)

Start with the abstract

- This is your roadmap for the paper

For more about abstracts: https://ekopter.github.io/scientific_communication_support_website/all-about-abstracts.html

academic life histories

Written by Damien
@DamienFarine

Workflow

Have a catch-all lit review document for each paper

- When you read papers related to your topic, make some quick notes (with citation!) about the important bits
- Include notes from meetings, emails, seminars, etc; anything applicable to the ideas, concepts, and literature that will be in the paper
- Even as you are writing, continue adding to this catch-all document anytime you read/learn more about the topic

Workflow

Plan for a non-linear writing process

- Recognise that writing is an iterative process. Plan to write & re-write, more than once.
- First draft: Just get the content down! Don’t worry about perfect structure & language.

Seek and embrace feedback [Hotaling 2020]

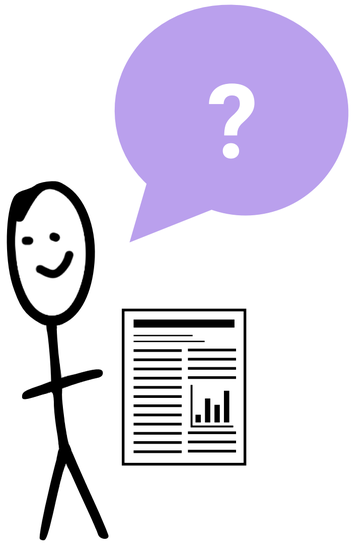
- ……

We habitually exchange feedback on written work

The best ways to improve our writing

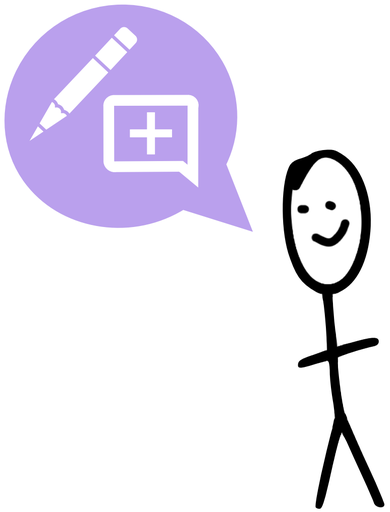
Receiving feedback

- The only way to really know what your audience gets from your writing



Giving feedback

- It is often easier to see merits and faults when critically considering writing that is unfamiliar



Getting and giving writing feedback

Add your thoughts on google slide #4

- When *asking for* feedback:
  - Who and when can/should you ask for feedback?
  - How should you ask for feedback?
- When *receiving* feedback:
  - What should you keep in mind?

Add your thoughts on google slide #5

- When *giving* feedback:
  - What should you ask the author before you start?
  - What should you keep in mind?
  - What should you aim for?

Getting writing feedback

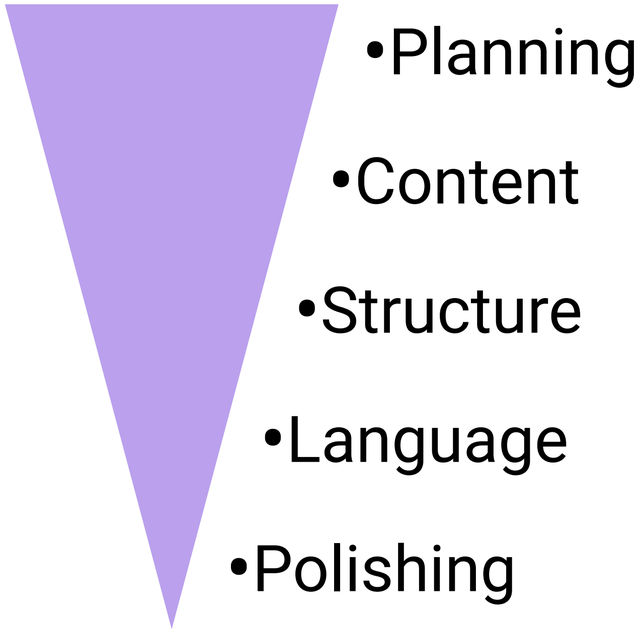
- When *asking for* feedback:
  - Discuss with your supervisor/PI when/what they would like to give feedback (on).
  - Make sure at least one ‘outsider’ reads your paper, usually at a later stage.
  - Be specific about the type and scope of feedback that you want.
  - Be upfront about your timeline/deadline.
- When *receiving* feedback:
  - Consider feedback carefully - take it seriously, but not blindly.

Giving writing feedback

- When *giving* feedback:
  - Know the authors intended destination/audience for the text.
  - Be specific about the time commitment that you can make.
  - Give feedback mainly (only?) on what you've been asked to.
  - Be critical and constructive.
  - Be kind.

Categories of feedback

- A shared lexicon for discussing the types of feedback that we want



- For more details: https://ekopter.github.io/scientific_communication_support_website/feedback-framework.html

Possible avenues to normalize feedback exchange

Add your thoughts on google slide #6

- What are potential barriers to asking for feedback? to giving feedback?
- What sorts of systems/programs/attitudes could we adopt to lessen/remove these barriers?

Possible avenues to normalize feedback exchange

- Implement minimum feedback guidelines, e.g.:
  - Before a manuscript goes to your supervisor/PI, it goes to a peer
  - Before a manuscript is submitted, it goes to somebody outside of the project
- 1/month ‘Journal Club’ to workshop somebody’s manuscript
- ‘Feedback Pool’ - members can submit texts for editing and may receive requests to edit