Research Manuscripts

20.109 Communication Workshop 5

RESULTS

Subheading 1 summarizes your 1st major conclusion. Corresponding data are in Figure 1.

Paragraph A describes data in Figure 1A.

Paragraph B describes data in Figure 1B.

Paragraph C describes data in Figure 1C.

Subheading 2 ...

A

B

C

Figure 1
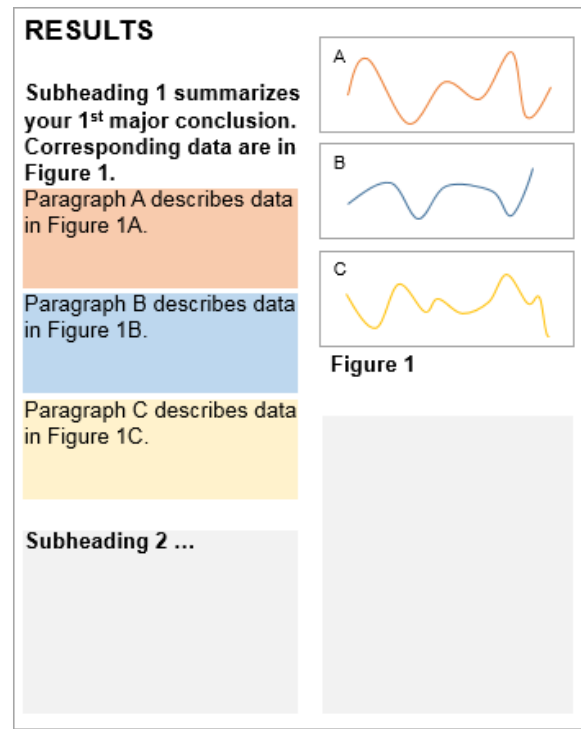
Today's agenda:

Intro to structuring a research manuscript

Resources for structuring your research article on wiki

Work session: draft a data-to-story framework

Leave with overall narrative and structure for your research article

Build on framework to flesh out research article

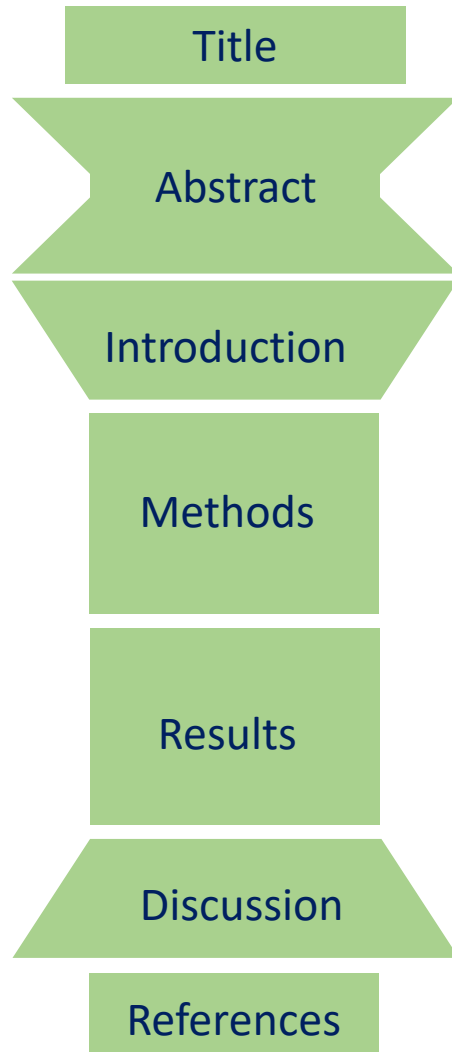Complete your draft following the logic you develop today

Discuss | In what order do you...

Title

Abstract

Introduction

Methods

Results

Discussion

References
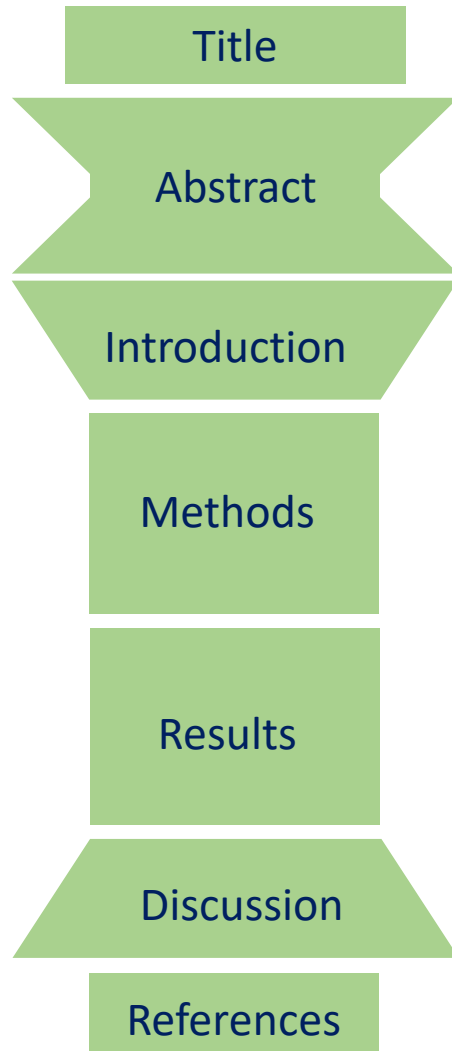
...**read** a paper?

...**write** a paper?

We recommend writing in this order

Title

Abstract

Introduction

Methods

Results

Discussion

References

1. Figures + Captions
2. Results
3. Discussion
4. Introduction
5. Abstract
6. Title

Methods?

Your data acts to support an overall storyline

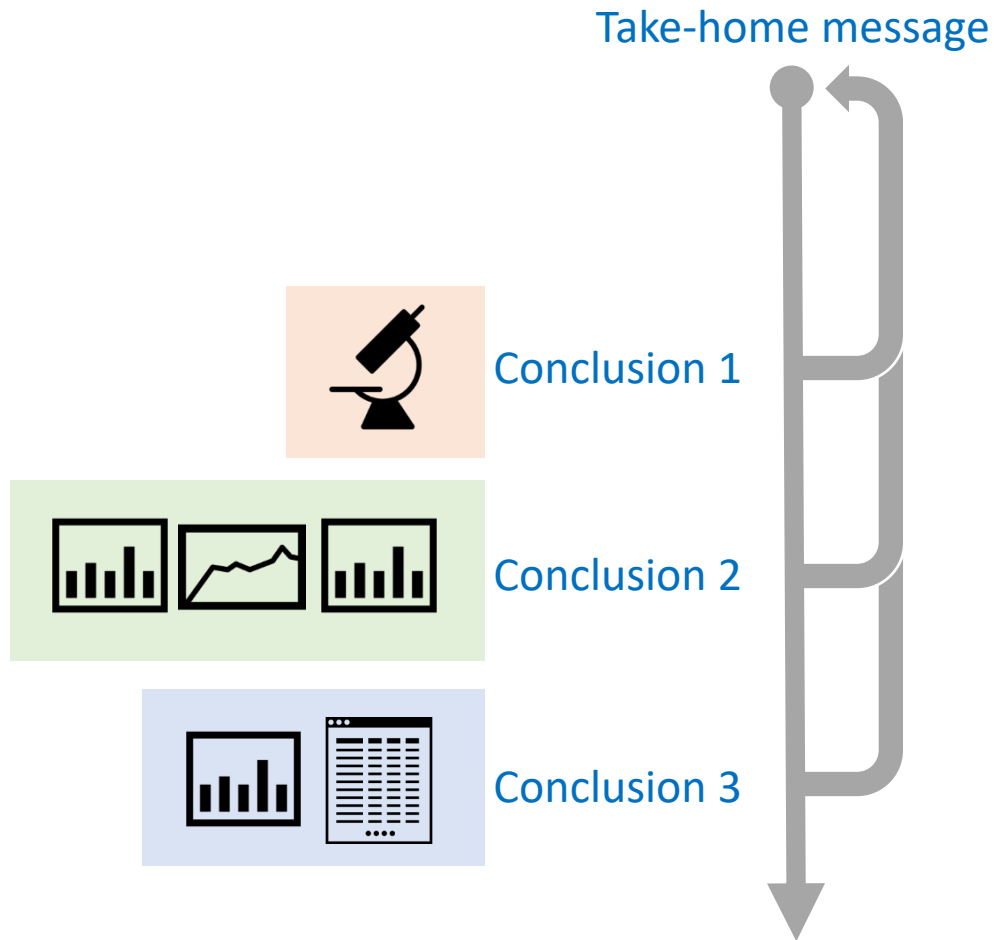Rearrange until you've created a **logical series** of data.

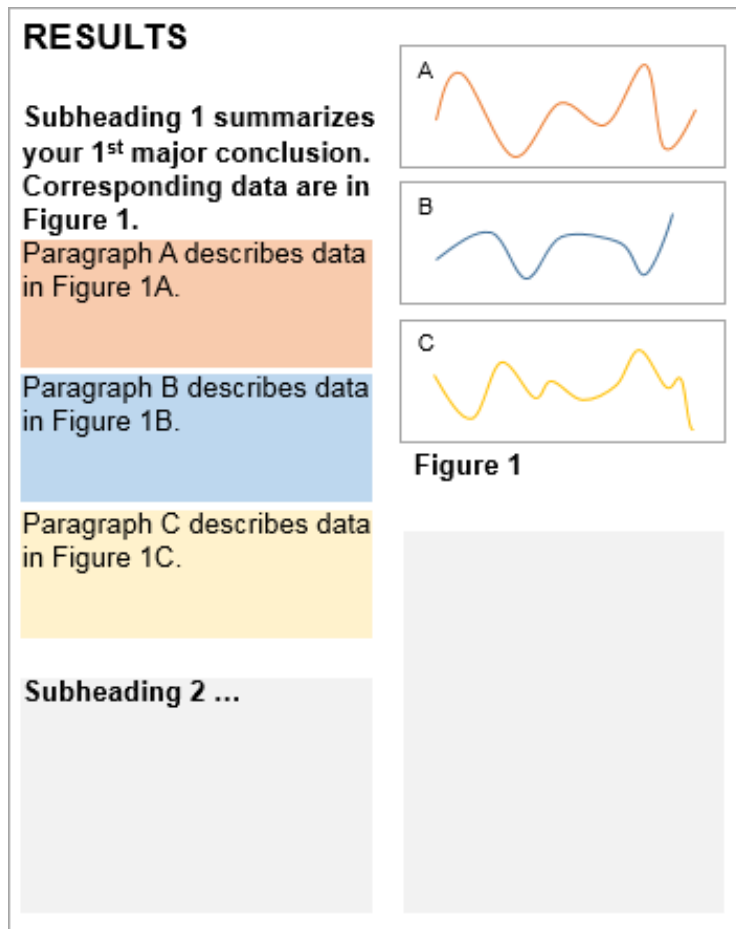# Identify **modules** that correspond to **conclusions**.

Organize figures as steps within your storyline

Identify **modules** that correspond to **conclusions**.

Parallelism: content goes in same order
Data | Methods | Results | Discussion

Parallel organization, varying scope:

Methods: Most technical detail

Results: Motivation for key methods you used; high-level summary of methods used to obtain results

Figure captions: high-level description of methods used

Redundancy in your paper helps your reader find the information they need

|		
General Background	Something everyone in your audience cares about	Introduction – beginning
Specific Background	Zoom in from general background to the thing you did	Introduction – beginning
Knowledge Gap / Unknown	Question that will be answered by your research; problem or phenomenon that is not understood	Introduction – end
Here We Show	Conclusion, answer to the unknown	Introduction – end Results – end Discussion – beginning
Results	Brief summary of approach + very high-level results. *Common pitfall = excessive detail*	Introduction (high level) Results Methods
Implication / Significance	So what? What do your results mean for the thing everyone cares about?	Discussion

Arrange your data into a logical narrative for the research manuscript

For each data figure, outline the following:

- what is the **take-home message**?
- what are 1-2 data points that support this message in your figure?
- how does this message connect to the overall story?
  - how was it motivated by previous result
  - how does it motivate next result

Ask instructors for feedback at any point!

Take-home message

Conclusion 1

Conclusion 2

Conclusion 3
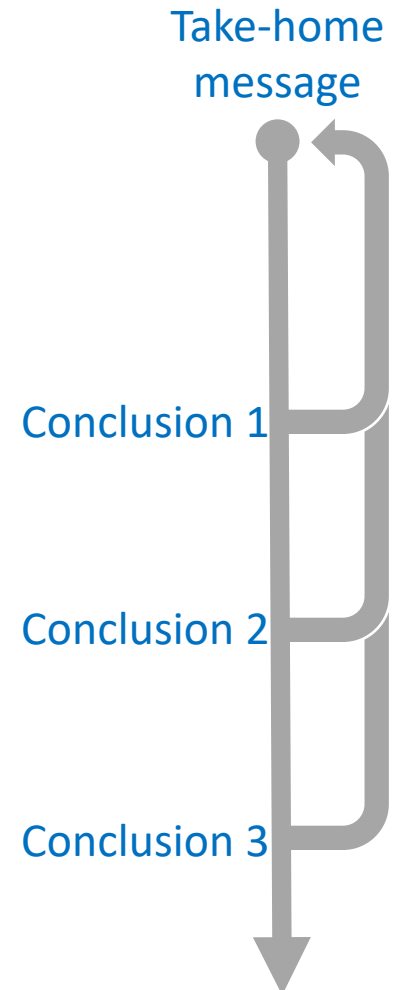
Revising is **essential**

- Do not try to write this paper all at once.

- **Outline, pause, draft**, set aside for a few days

- When you get stuck: write topic sentences, work on the next section, look at examples

- Get feedback:

  peers, instructors, Comm Lab Fellows!

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