

# 10 simple rules for structuring papers

Mensh & Kording (2017)

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# Three goals

Rule # 1-4 : not to lose your reader

Rule # 5-8 : to specify the structure of each part of a paper

Rule # 9-10: to give us guidance for efficient writing

## # 1. Focus on one big idea: title



Can your readers make “1-sentence summary”?



Is your title the “ultimate refinement of your paper’s contribution?”



Make your one contribution simple, but no simpler

## # 2. Write for naive humans



Did your readers know “why it matters”?



Did your readers understand “what you did”?



Define technical terms, avoid abbreviations and acronyms

## # 3. Context-Content-Conclusion (C-C-C)

- ✓ **Context** or “why” in the introduction?
- ✓ **Content** or “body” in the results?
- ✓ **Conclusion** or “so what” in the discussion?

## # 4. Optimize logical flow



No “zig-zagging”?



Is your reader not “stumbling on a small section”?



Use parallelism - *“nothing is wrong with using the same word multiple times!”*

## # 5. Abstract: summary of paper (story)

**Abstract**



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

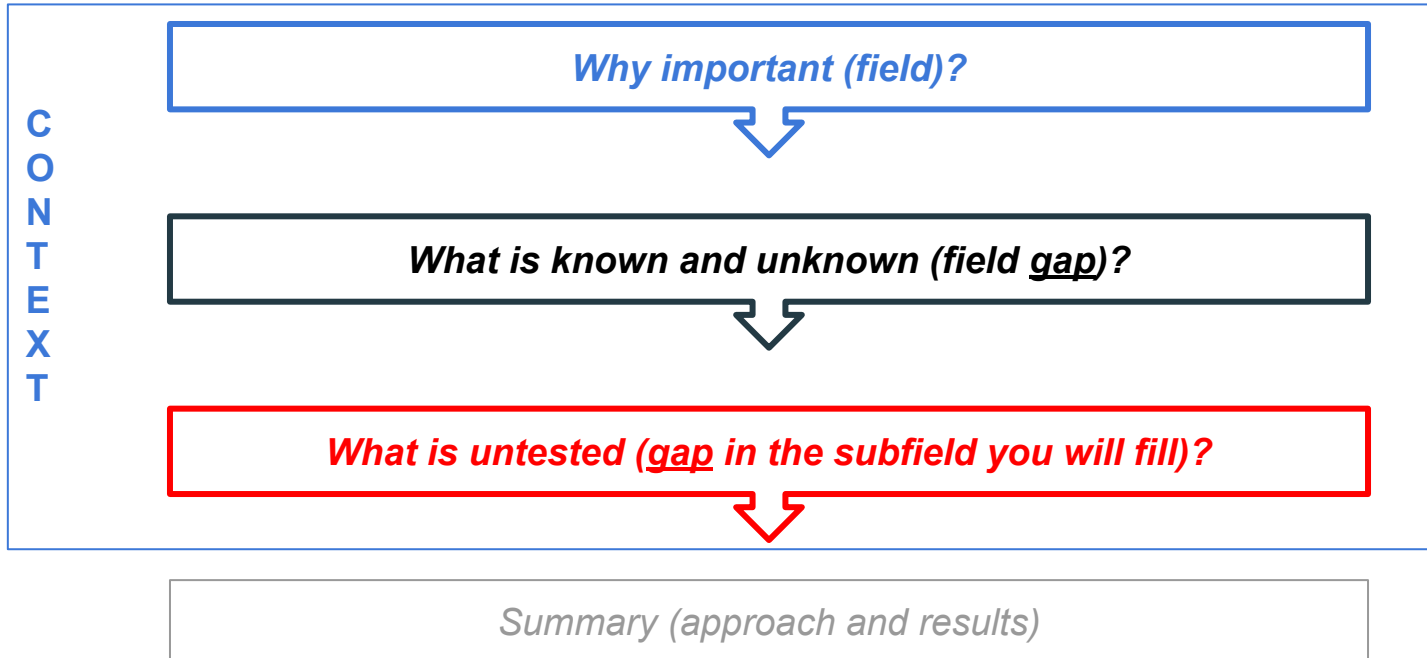
**Context:** *gap; what is missing, and why it matters*

**Content:** *novel method to fill the gap*

**Conclusion:** *how your results move the field forward*

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## # 6. Introduction: why it matters (gap-focused)?





## # 7. Results: justify your conclusion

*“Sequence of statements, supported by figures, that connect logically to support your central claim”*

C O N T E N T	<i>1st result paragraph</i>	<i>Subsequent paragraphs</i>
	<ul style="list-style-type: none"><li>● Summarize<ul style="list-style-type: none"><li>○ Main Question</li><li>○ <b>Methods</b></li><li>○ Answer sought</li></ul></li></ul>	<ul style="list-style-type: none"><li>● Question that this paragraph answers</li><li>● Data and logic</li><li>● Answer to the question</li></ul>

## # 8. Discussion: so what?

C  
O  
N  
C  
L  
U  
S  
I  
O  
N

*Summary of the results (how the gap was filled)*



*Potential weaknesses, future experiments etc.*



*How the paper moves the field forward*



*“Science is better now”*

## # 9. Allocate time wisely

- Formalize the central logic
- Focus on title, abstract, and figures
- Make an outline

## # 10. Iterate the story

- Sometimes rewriting is the fastest
- Watch for ‘further work needed’ signs ([supplementary](#))
- Getting feedback from test readers, editors, or reviewers

# 1-line summary of this presentation

“Remember your readers,

Remember your central claim,

And write the story following C-C-C”

Thank you!

# Supp 1.

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

<b>Rule</b>	<b>Sign it is violated</b>
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.