

Abstract writing: The MadLibs approach

Megan A Moreno, MD, MSED, MPH

Remember MadLibs?

- Back in the day you could write an entire story just by filling in key words within an existing framework.

The Troll Under the Bridge

One day, a _____ wanted to cross a bridge over a pond.

Under that bridge lived a _____ and _____

troll. Stamp, stomp, stamp. He _____ over the bridge.

“Who tramps over my bridge?” yelled the troll. “Stop or I will

_____ you!” But he had already crossed the bridge.

On the next day, a sleepy _____ wanted to cross the

bridge. Stamp, stomp, stamp. He _____ over the bridge.

“Who tramps over my bridge?” yelled the troll. “Stop or

I will _____ you! Oh, never mind.

Nobody listens to me anyway!” And with that,

the troll _____ away.



Remember MadLibs?

- Writing the traditional medical 250-ish word abstract is very similar, you use a concrete structure and fill in the details from your own study.
 - Avoid the too-long introduction
 - Address components reviewers are seeking
 - Focus on key information so you can then use creativity in your poster or presentation




Learning objectives

- Learn strategies and approaches for abstract writing
- Outline critical information to include in each abstract section
- Apply learnings while writing an abstract during this session



Today

- Focus on **practical**
 - **Write as we go**
 - **Paper and pen**
 - **Laptop with blank page or worksheet**
 - **Ok to do bullet points and turn into sentences later**
 - Won't have time to discuss....
 - The joy of completing a project and learning something brand new
 - The feeling of excitement when you think about sharing your project with others at a scientific meeting
 - The elation you feel when an abstract is accepted
- 

Key points before you start writing

- **Format of abstract** is typically Introduction, Methods, Results, Discussion/Conclusion

Key points before you start writing

- **Format of abstract** is typically Introduction, Methods, Results, Discussion/Conclusion
- When **drafting abstract**, I recommend going in order of Methods, Results, Introduction, Conclusion
 - You're likely to put the most effort into the sections you write first, and the methods and results should receive the most attention
 - Writing the Introduction first usually makes the Intro the longest section, most of the time you want the Methods and Results sections to have the most content and attention

Overall principals of abstract writing

- Methods and results are the most important sections

Your abstract sections should be kind of like this

Introduction

Methods

Results

Conclusion

Not like this

Introduction

Methods

Results

Conclusion

Overall principals of abstract writing

- Methods and results are the most important sections



sections should be kind of

on

Results

Conclusion

Not like this

Introduction

Methods

Results

Conclusion



Overall principals of abstract writing

- It is ok to have sentences with choppy wording, it is not ok to have spelling or obvious grammar errors
 - Ask someone outside your field to read the abstract
- You are writing an abstract on a study that is finished. Thus, **use past tense**. “The purpose of this study was....”, “we conducted surveys,” “we found that.” (Exception to this rule is URS)

Overall principals of abstract writing

- Make sure you are using **consistent terms** throughout your abstract
 - Population studied: Use “adolescents”, versus varying youth/teens/adolescents/participants
 - Measures: call same thing in each section
- Not everything will fit in the word count you have.
- Some things are really important to report, but not in an abstract
 - IRB approval not usually in an abstract
 - References not usually needed in a medical abstract
 - Info about every single variable not usually needed
- If your data came from a larger dataset, only need to describe and report on the data you used

Let's write!

METHODS

Your methods must address the following:

1. Type of study: survey, focus group, etc.
 2. Subject population: Who was in your study?
 3. Data collection methods
 4. Variables of interest
 5. Analysis methods
- *Must include:* study design, participant population, recruitment approach, key measures, analysis approach
 - *Not essential:* IRB approval, inclusion/exclusion, every variable, every statistical approach

Let's write!

METHODS

Madlibs style:

In this _____ study, we recruited _____ age participants from _____ for _____, measures included
Type of study year range study site data collection

_____ and _____. Analyses included _____ and _____.
variable 1 variable 2 approach 1 approach 2

- Pediatric residents (**participants for first part of study**) completed surveys (**data collection method**) assessing the frequency and types of emotionally charged situations they encountered and current supportive measures they used to cope (**variables**). Focus groups were conducted (**second part of study: study type**) with select faculty and residents (**participants**) to discuss survey results and develop a formal program to provide support to affected residents. Written notes were taken during focus groups (**data collection methods**). Analysis included descriptive statistics for surveys and thematic analysis using an iterative process for focus groups (**analysis**).

Let's write!

RESULTS

- There are often three tiers of results:
 1. **WHO:** You must address WHO was in your study. The number of participants, ages, gender, race, or other characteristics. For conference abstracts include response rate if you did a survey
 2. **WHAT:** The basics of what you found. This may include descriptive analyses (mean, median of measures you used), or themes from focus groups.
 3. **WHAT ELSE???** COMPARISONS/PREDICTIONS/ASSOCIATIONS:
This third level of data can be used if you have room and want to include more advanced modeling or association data.

Let's write!

RESULTS: Example

Madlibs style:

A total of _____ enrolled in our study who were average age _____, _____% female and _____% on Medicaid. We
of ppts mean(SD) %
found that the mean _____ value was _____ and mean _____ value was _____. Participants who were _____ were more
variable 1 value (CI) variable 2 value (CI)
likely to report _____(OR=x.xx, 95% CI xx-xx).

- **Example:** (WHO) 273 participants (73% response rate) completed the online survey. Participants were 63% female, 90% students, and had an average age of 18.8 (SD=0.9) years. WHAT 20% of participants reported an ASRS score consistent with ADHD, and 36% scored in the IAT's problematic user category.
COMPARISONS/PREDICTIONS/ASSOCIATIONS Those with ADHD symptoms were more than twice as likely to report symptoms of PIU (OR=2.5, 95% CI: 1.2, 5.3). Estimated mean daily Internet use was 86.1 minutes (SD=144.2); the most frequently reported online application was social networking sites (52.9%, 95% CI: 48.8, 57.0). No associations were seen between ADHD symptoms and overall time online, or percentage of time on different applications.

A close-up of Morpheus from the movie The Matrix, wearing his iconic black sunglasses. The image is used as a background for a meme. The text is overlaid in white, bold, sans-serif font with a black outline.

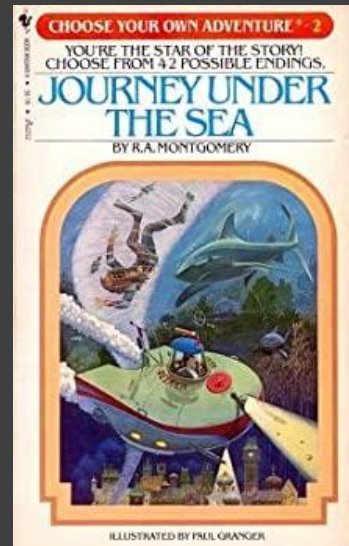
WHAT IF I TOLD YOU

**YOU CAN WRITE YOUR METHODS
AND RESULTS DURING THE STUDY**



Now you have written the methods and results

- These two sections should be the longest of your abstract
- Check your word count and get a sense of how much space you have for introduction and discussion
- Now you have a choice:
 - Introduction
 - Discussion



Let's write!

INTRODUCTION

Total length: 3-4 sentences

Sentence 1:

- Define the problem and capture the reader's interest. *State what is known.*
- Illustrate that your research area of interest is common, or serious, or important, or all 3!
- Try to include a fact-based number where appropriate.
- For example:
 - Greyscale affects over one million children a year and leads to numerous health and societal consequences.
 - *BUT...don't give a general statement such as "Greyscale is an important problem for children." This is not very interesting or motivating, make it compelling.*

Let's write!

INTRODUCTION

Total length: 3-4 sentences

Sentence 2: *Sentence 2 has two possible paths*

- Identify the gap in the literature that you will fill. *State what remains unknown.*
- Examples include:
 - It remains unclear how children with greyscale learn to manage their own care by age 18.
 - *BUT...don't be disparaging of past research, such as "Previous studies have ignored the importance of gender in this area", this negativity is irritating to the reader. Try to avoid the word "never", such as "Gender has never been examined as an important factor in greyscale." Chances are it has, and your reviewer may know about it.*



Let's write! INTRODUCTION

Total length: 3-4 sentences

Sentence 2:

- Sometimes your study needs to introduce a second main concept, can do that in sentence 2 if needed.:
 - Greyscale affects over one million children a year and leads to numerous health and societal consequences. It is estimated that over 75% of children have a magical sword by age 10. It remains unclear how children with greyscale leverage magic to manage their condition.





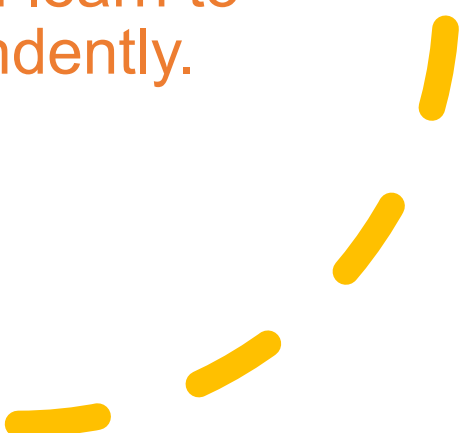
Let's write! INTRODUCTION

Total length: 3-4 sentences

Sentence 3:

- Fill in the blanks..."The purpose of this study is _____."
State what you will do

Examples include:

- The purpose of this study is to investigate the processes by which children learn to manage their greyscale independently.
- 

Let's write!
CONCLUSION

Total length: 3 sentences max



Sentence 1:

Summarize or synthesize your findings. Do not restate them. Alternatively, offer an overall conclusion summary statement.

- Example: We found that males were more likely to report difficulty in transitioning to independent greyscale care.

Let's write!
CONCLUSION

Total length: 3 sentences max



Sentence 2:

Interpret or explain your findings in light of your hypotheses or previous evidence. Alternatively, offer thoughts on what those results could be used towards clinically or in future research.

Example: These findings suggest that clinical educators should consider tailoring educational messages to different genders.

Let's write! CONCLUSION



Total length: 3 sentences max



Sentence 3:

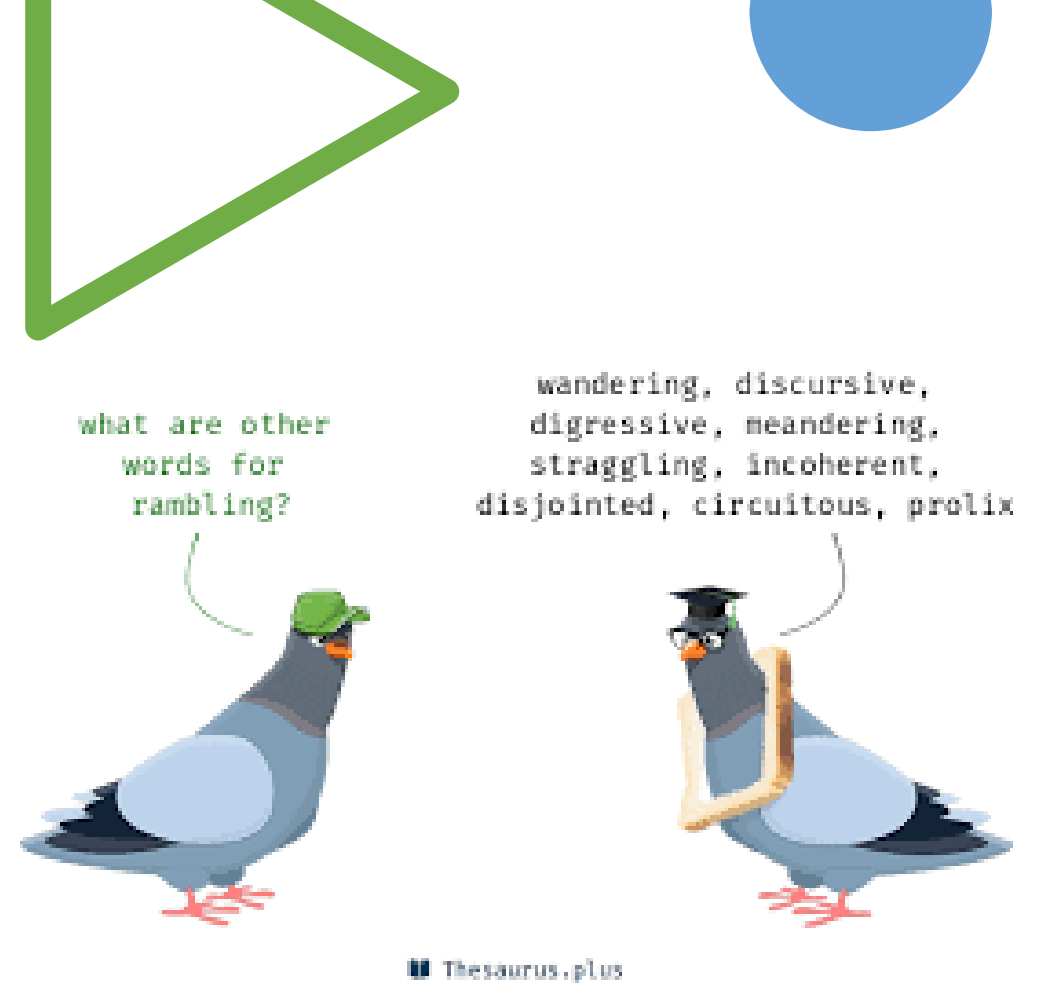
Could use a 3rd sentence to introduce future study or implications if you have something important to say. Don't always need a third sentence.

Don't use up space by saying the generic statement "Future studies are needed."

Example: Future studies could incorporate gender-specific prevention messages to determine whether this approach improves greyscale care for male youth.

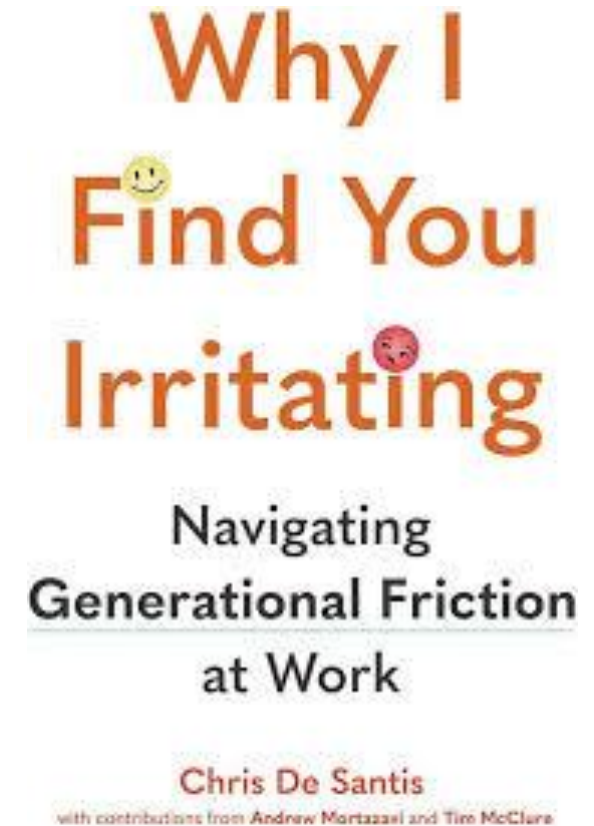
Now what?

- Too long?
 - See if you can cut the first or last sentence
 - Look for wordy phrasing
 - In order to
 - As previously mentioned
 - Rambling



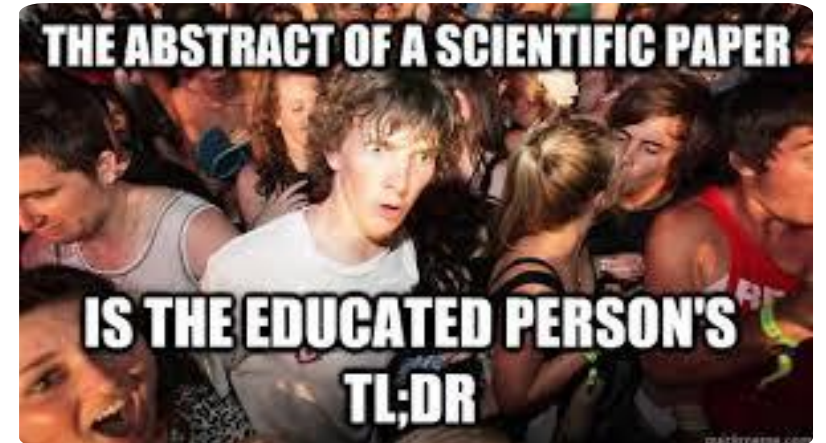
Now what?

- Ways to irritate your reviewers:
internal and external
 - Save your abstract with a name like “abstract version 4”
 - Send the abstract 24 hours or less before submission and ask for input
 - Don’t include your title
 - Have different fonts in your abstract



Now what?

- Ask for input
 - Mentor or collaborator: should review 3-5 times
 - Other reviewers
 - Peer
 - Other mentors
 - Other faculty
 - You should have at least one reviewer who is not part of the study team
- The 3 C's of editing: Know what you are asking for
 1. **Conceptual** and scientific edits
 2. Clearing up any **confusing** sections
 3. **Copy** edits



Final steps

- See the abstract through different lenses
 - Print and read on paper
 - Read backwards by section
 - Read backwards by sentence
- Near the end, use a checklist



Now what?

- You submitted! Great job!
 - Start on the paper





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