**Peyton Lab Workshop: Tips and tricks to writing a paper**

The Peyton Lab Writing Guide

Edited by LEJ 2/22/17

1. **Outline your figures a discuss the story with Prof. Peyton**

Goal: Decide the story you want to tell. Make sure your data supports this story. Decide which data you have that contributes to this story. Determine the best order to present the data.

*Advice*

* Start earlier and bring your figures to individual meetings often
* Most of this is discussion between you and Prof. Peyton

*Checklist*

* Discuss your authors and author order with Prof. Peyton
* Paper has a title, try and keep below 15 words.

1. **Figure meeting**

Goal: Present your figures out loud and get feedback.

*Advice*

* Ask other people or authors for advice on data presentation

*Checklist*

* + Setup a time when all the authors can meet and reserve a conference room
  + All fonts are the same and font sizes are consistent between figures (7pt minimum)
  + All graphs are formatted the same throughout
  + Graphs are aligned
  + Limit the white space in figures
  + Each figure has a title and legend
  + Make your color scheme consistent throughout
  + Keep schematics consistent

1. **Write paper or manuscript and give hardcopy to Prof. Peyton**

Goal: Determine the paper content, the way you discuss that content, and the order you want to present the content. Polish and get everything structured to sound and look like a real paper!

*Advice*

* Have a long discussion with Prof. Peyton about paper content and outline of the introduction.
* Make sure you are citing the appropriate papers and talking about the results that are important for your work.
* Be critical about the topics you discuss and the order you bring these topics up.
* The manuscript should be readable. Lots of misspelled words and bad grammar will make Prof. Peyton angry and lower the quality of your review.
* Reading it out loud before sending it out to Prof. Peyton.
* Talk to your other authors for advice on content and ask them for help in the writing
* Many things can change at this stage,

*Checklist*

* + Have all co-authors read and approved of the document?
  + Is your paper in the two-column format?
  + References should be embedded with Endnote
  + Who are the first 5 people you cite? Do you want them to review your paper?
  + Do you have all the components? Abstract, Introduction, Results, Materials and Methods, Discussion, Conclusions, Keywords, Acknowledgements
  + What types of papers are you referencing? Heavy on the research and light on the reviews!
  + Are you citing everyone you should be citing? Make sure to do a literature search so you know where your research fits with the field.
  + Figures and figure components are 1) referenced and 2) referenced correctly in the paper
  + Figures and components appear in the text in the same order they appear in the figure
  + All material locations are cited
  + Your syntax is consistent throughout the paper
  + Consistent tense
  + Grammar is to the best of your ability
  + Make sure you don’t have super long paragraphs and or sentences
  + Check your abbreviations

1. **Send paper out to lab reviewers**

Goal: Get critical review comments, have outside members point out content holes, get a new set of eyes on the order, flow, and conclusions of the manuscript.

*Advice*

* Send out to all the authors, besides Prof. Peyton, and have them review your draft
* Discuss Prof. Peyton’s comments on your paper with her and clarify any questions
* Make sure you think it sounds like a research paper
* Print off and read the draft on paper

*Checklist*

* + Figures and figure components are 1) referenced and 2) referenced correctly in the paper
  + Figures and components appear in the text in the same order they appear in the figure
  + Grammar is to the best of your ability

1. **Send a really polished draft to Prof. Peyton**

Goal: Make your paper into a final draft for the journal you are submitting.

*Advice*

* Send out to all the authors, besides Prof. Peyton, and have them review your draft
* Discuss Prof. Peyton’s comments on your paper and clarify any questions
* Make sure it sounds like a research paper. Don’t waste Prof. Peyton’s time with bad grammar or misspelled words.
* Print off and read the draft on paper
* Make sure you know which journal you are thinking about submitting
* Think about every sentence, read it critically, make sure it has a point
* Check for really long, and overly complicated sentences. Can you reduce these?
* Try and reduce prepositional phrases, these can make a paper confusing.

*Checklist*

* + Check your word count for your abstract, main body, and materials and methods

1. **Polish your paper and critically evaluate every sentence**

*Advice*

* Print off and read the draft on paper
* Challenge yourself to cut words without changing the content of the manuscript

*Checklist*

* + Check your word count for your abstract, main body, and materials and methods
  + Make sure references are in the journal format

1. **Group line-by-line**

*Checklist*

* + Setup a time when all the authors can meet and reserve a conference room
  + Reserve room

1. **Submit paper**

*Checklist*

* + Format submission according to journal guidelines
  + Write cover letter
  + Suggest 2-3 researchers for the paper revisions
  + Depending on journal, you might also need to suggest a editor

1. **Revisions**

*Checklist*

* + Write a response letter to the editor and reviewers
  + Highlight all changes made in the document
  + Detail your response to each of the reviewer’s comments