**Paper Drafts: Formatting**

Posted on: Monday, July 8, 2019 3:39:37 PM CDT

Thank you, everyone, for submitting the drafts of your project papers.  There is plenty of material in each of your documents, and I am working my way through providing extensive comments on each of your papers.  I decided to review each paper at two levels -- first, I have looked at everyone's work at the level of organization and formatting, and next, I will review your papers for content.  You should be able to see all comments made up to this point, but scores will not be posted until I have completed assessing the content portion. I have seen some issues across multiple papers, and so I'd like to summarize those components you should all work on fixing as you move forward.  Please review the Format Guide to make sure that you have adopted the style I have requested for this written document.

* Page Numbers
  + All preliminary pages (those before the start of your Introduction chapter) should be numbered with Roman Numerals -- these should be placed at the bottom center of the page (I believe you have all done this correctly), and the font used should be Times New Roman.  Please make sure that these letters are lowercase (for example, the Abstract page should be ii rather than II).
  + For the remainder of the document, please use Arabic Numerals (everyone has done this part successfully), making sure to place them in the correct location.  The first page of a chapter (where you use a heading formatted in all CAPS) should have the number placed bottom center; all other pages within that chapter should then have the number moved to the upper right corner.
* Headings and Subheadings
  + Please use the formatting stated in the Format Guide (see III.G).
  + Make sure that all headings are placed on the same page as the content they are labeling (do not leave orphaned headings on the last line of a page).
  + Headings should follow verb tense rules, too; especially for the methods section, make sure that these headings are consistent with past tense.  For example, instead of writing "Preparing the Data Set" (which uses the active -ing word), revise to "Preparation of the Data Set."
* Top Margin
  + Use a 2 inch top margin: Acknowledgment page, first page of chapters (Introduction, Methods, Results, Conclusion, for example).
  + Use a 1 inch top margin: Every other page in the document, including the Abstract, Table of Contents, List of Tables, List of Figures, List of Abbreviations, Literature Cited, Appendix
* Appendix
  + Everyone has selected a project in which you have created some new, unique data set and therefore it is important to make available that set (or sets) to your readers.
  + Within the Appendix, give your data set a name (you should reference it by the same name elsewhere in your document) and then provide a description of attributes of that set.  For instance, describe how many patient samples are included, and then make clear the type and how much information is provided for each patient.  If there are any abbreviations or non-obvious labels for included information, please make that clear as well.  That way, when someone accesses the set, they can understand the information without making assumptions, and can make sure that they have a complete set (there's no missing information).
  + Provide the data set -- if it is small enough to give all complete information on a single page in the document, then it is appropriate to place it directly within the document (perhaps as a table).  If the data set is too large to fit on a single page, provide a link to a location where the reader can access the full set of information (such as through a Google document or a linkable location in cloud storage).
  + If you have more than one data set, please describe and link to each uniquely/independently.
* Data Panels
  + For each data panel (table or figure), make sure it is placed on its own unique page in the document.  It should appear on the next new page immediately following where it is first mentioned in the text.  If you introduce two data panels (say a figure and an accompanying table) on the same page in the text, then place them, independently on the next two pages in the document (not both on the same page).
  + Each data panel should be numbered and have a descriptive title (by reading the title, the reader should have an appreciation of what type of information is displayed, without needing to read additional information in the accompanying text).  Make sure that the title given with the data panel is consistent with the title given on the List of Tables/Figures.  For example: "Figure 1.  Distribution of Heroin-Related Deaths, by Gender and Race (2010-2015)" which would clearly be distinct from "Table 1. Total Number of Heroin-Related Deaths, by State (2010-2015)."  If it is necessary to provide additional information needed to interpret the data panel (such as an explanation of color coding or criteria for statistical significance), that information should follow the title as part of the legend.
  + There may be instances where it is appropriate to display figures/tables that have been previously published by other sources, either to help summarize a concept or to provide a direct comparison.
    - If you elect to reproduce a table or figure from another publication, place it in your document using the number order that applies to your paper (if it appears as the first figure, label it as "Figure 1" even if it was "Figure 5" in the original publication) and then provide the title from the original source, followed by (Author(s), Year) to cite it.
    - These figures may be appropriate to incorporate as background information (part of the Introduction chapter) or as part of the Discussion/Conclusion, but should not be part of the Results chapter.
  + Essentially all data panels you prepare (as a consequence of your analysis) should be incorporated as part of the Results section.  There are rare instances when it is appropriate to summarize criteria used as part of the procedure within the Methods chapter, but this should be used sparingly (if at all).  Although you will describe how analyses were completed within the Methods chapter, this section should be limited to explaining what you did, not the outcome.  Reserve presentation of your analyses for the Results section.
  + Make sure that all features of the data panel (especially text) are easy to interpret/read -- this will also be very important for preparing your presentation slides.  If axis labels are very small, your audience may not be able to read them and not fully understand the information you are sharing.
  + All tables should be generated using a table formatting feature, rather than taking screen captures of spreadsheets.  Please format these tables so that headings are clear, contents are easy to interpret, and formatting helps to distinguish rows and columns in a way that is nicer looking that simple cells defined by black lines.
  + Be mindful of the resolution of images within figures, checking that what you present is not pixelated or blurry.
* Literature Cited
  + For articles, make sure that you have reported the author list, year of publication, article name, journal name, volume number (sometimes issue number), and page number(s).  If you elect to, incorporate the DOI.  Please eliminate reporting PMID.
  + For help with correctly reporting where you have accessed data, refer to the "Data Sets" portion for APA formatting through [Purdue Owl](https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_formatting_and_style_guide/reference_list_electronic_sources.html).
  + For help with correctly pointing a reader to a specific page of a larger website, refer to the "Webpage or Piece of Online Content" portion for APA formatting through [Purdue Owl](https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_formatting_and_style_guide/reference_list_electronic_sources.html).

Much more individuated comments will be made within your document directly; please make sure that you have checked your work against this summary list as well as address comments I provide directly though your draft.  I will continue with review of your work for content tomorrow, and intend to provide a similar summary as well as provide individualized comments within your paper.  If there are questions, please do not hesitate to contact me.

Posted by: Sarah Powers

Posted to: SU19-BIOL-59000-001 Data Science P