



Incorporating Data in Academic Writing

Incorporating Data

As a graduate student, one of the things you will likely be faced with is incorporating data into your academic writing. For many, this will be the first time you have collected primary data (i.e., your graduate research), and incorporating the data into a thesis, dissertation, or major research paper (MRP) can be daunting. This handout is designed to give guidance on how to incorporate research data into a major piece of academic writing.

- In almost all instances, data should only be presented in the results section.
- Occasionally, some research is undertaken to develop your methodology (e.g., a pilot study) that may be presented in the methods section.
- In the results section, the data is presented and key patterns and trends are interpreted. However, wait until the discussion and conclusion sections to discuss the meaning and implications of the trends and patterns and to compare them to the existing literature.
- Always provide enough data for readers to make their own interpretations and form their own conclusions about the research. In other words, avoid 'cherry picking' from the data to support your own hypotheses.
- In contrast, do not include the entirety of your research dataset (i.e., raw data) in the results section. You can always add an appendix at the end of the document if you feel it necessary.
- Lastly, consider the order in which you present your data. Try to develop a logical order to best capture the purpose of your research and the findings you are communicating.

Incorporating data into a thesis/ dissertation/MRP will always involve some level of aggregation in order to summarize key patterns and trends. Data is presented visually, or numerically in percentages, averages, totals, and other forms of descriptive statistics – rarely if ever should you present your raw data. Tables and figures are the most common tools used to summarize research data. Patterns and trends can be shown visually using graphs, spatially using maps, or numerically using tables.

- Always remember to refer to every table and figure in the text of the results at least once.
- However, do not be repetitive and unnecessarily describe information in the text that can be discerned from the table or figure. Instead, use the text to describe the most important outcomes of the data summarized in the table or figure.
- Every table and figure must have a caption to describe it. The caption should provide enough information about the table or figure so that the reader does not have to refer to the text to understand its meaning. Graph and map figures should also have a legend describing features/images used in the figure.

The data you have collected for your graduate research is the core of your thesis, dissertation, MRP, or other piece of academic writing. It provides the foundation for all other discussion and ultimately confers the outcome and importance of your research to the reader. Be sure to spend sufficient time considering the best ways to incorporate and summarize your data in the writing process.