



**WRITING
SCIENTIFIC
PAPERS AND
REPORTS**

SUGGESTED COURSE EXTENSIONS

A. Reviewing

1. Find a journal article about a quantitative study in your field. Evaluate the following aspects of the article, using the principles in chapter 11 of *Writing about Numbers*, 2nd Edition.
 - a. Clear introduction of the broad issues or questions to be investigated
 - b. Review of the previous literature to identify pertinent theories and existing evidence
 - c. Topic sentences that introduce the purpose of each table, chart, or quantitative comparison
 - d. Descriptions of direction, magnitude, and statistical significance of associations
 - e. Good explanations of how specific numeric findings address the questions under study
 - f. A discussion and conclusions section that summarizes numeric findings and relates them back to the research question and to previous studies
 - g. Consideration of causality and substantive significance of findings in the conclusions
 - h. Clear story line that ties together all sections of the paper
2. Critique the abstract, keywords, and title to the article used in the previous question, using the guidelines in chapter 11 and the instructions for authors for that journal. Revise them to correct any problems you identify.

B. Writing

Note: If you are writing a paper on a new quantitative analysis, complete these questions. If you have already written a draft of your paper, complete section C instead.

1. Write an introductory section for your paper following the guidelines in chapter 11 and the instructions for authors for a journal in your field.
2. Write the results section of your paper.
 - a. Organize the quantitative analysis into manageable chunks, each presented in a separate table or chart.
 - b. Use paragraphs and subheadings within the results section to organize written descriptions of each table or chart, working from the versions you created for the suggested course extensions for chapters 6 and 7.
 - c. Write topic sentences that introduce the purpose of each table, chart, or quantitative comparison.
 - d. Include generalizations about direction, magnitude, and statistical significance where relevant.

- e. Write transition sentences to orient readers about how the different tables or charts relate to one another and to the overall research questions.
3. Write the discussion and conclusions section of your paper, including:
 - a. summaries of major numeric findings rather than repetition of detailed numbers from the results;
 - b. a discussion of causality, statistical significance, and substantive significance of findings (see also chapter 3 of *Writing about Numbers*, 2nd Edition);
 - c. an explanation of how your findings relate to initial hypotheses and to findings of other studies.
 4. Write an abstract for your paper following the guidelines in chapter 11 and the instructions for authors for a journal in your field.
 5. Investigate which online databases list the leading journals in your field. Write keywords to satisfy the criteria for that database, following the guidelines in chapter 11 and the instructions for that database.
 6. Following the guidelines in chapter 11 and the instructions for your selected journal, write two different titles for your paper that are
 - a. worded as a statement.
 - b. worded as a rhetorical question.

C. Revising

1. Critique the introductory section of a paper about a quantitative analysis that you have written previously, using the criteria in question A.1. Rewrite it to rectify any problems you have identified.
2. Critique the results section of that paper using the criteria listed in question B.2. Rewrite it to rectify any problems you have identified.
3. Critique the discussion and conclusions section of that paper using the criteria listed in question B.3. Rewrite it to rectify any problems you have identified.
4. Repeat question A.2 for your paper.
5. Exchange initial and revised drafts of the materials in questions C.1 through C.4 with someone writing about a different topic or data. Peer-edit each other's work and revise according to the feedback you receive.