

Second Writing Assignment

Write a short paper (1-2 pages, double-spaced, typed) on the question assigned for your section. These are to be turned in by Noon on Friday, November 20. Papers should be submitted electronically to your TA in .doc or .rtf format. If this is not possible, you may deliver them to your TA's mailbox by Noon. Ben's students who need to turn in hardcopy may do so at the *beginning* of the section meeting that day. The goal of this paper is to explain clearly the central concepts employed in the question you are to address. Assume that your audience is a fellow student not in this class. To explain the material to that person you cannot just use the concepts we have developed in class but must *explain* them. Present your answers totally in your own words—do not quote material either from the website, the lecture powerpoints, or anyone else.

A-01 Design a PROSPECTIVE study to determine whether living near the ocean is a causal factor in above-average life expectancy. Identify the target group, the control group, and the independent and dependent variables. Discuss possible extraneous and confounding factors and how these might affect your findings. How might you control for possible confounds? What errors in reasoning should you be particularly concerned to guard against in carrying out such a study? What factors should be considered in deciding whether the results from your study can be generalized to others?

A-02 Your friend claims that frequently doing brain-puzzles (e.g., Sudoku, crosswords) has improved her cognitive functioning. Design a study to test whether frequently doing brain-puzzles is a cause of (or a causal factor in) increased cognitive functioning. Discuss all of the critical factors involved (operational definitions, values of independent and dependent variables, possible extraneous variables, possible confounding variables, etc.). How might you control confounds in this study? What errors in reasoning should researchers be particularly concerned about in evaluating the results of your study?

A-03 Design a RETROSPECTIVE study to determine whether drinking coffee on a daily basis is a causal factor in developing restless leg syndrome. Discuss the critical factors involved in doing the best possible retroactive study as well as what can be concluded from the study depending on its outcome and limitations. Be sure to discuss possible confounds that might be involved.

A-04. Design an EXPERIMENTAL study to determine whether “txtting” (sending or reading text messages) while driving is a cause of traffic collisions. What are the main theoretical constructs being studied, and what are the operational definitions of these constructs you will use in the study? Briefly state what the research hypothesis is, as well as what the primary dependent and independent variables are. Discuss ONE critical factor that should be considered in designing such an experiment, and defend the choices you make in designing the study. Discuss which, if any, features of the study design or the specific operational definitions chosen might limit the external validity of the study. If you don't think there are any such features, explain why not.