

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, March 8. 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. 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 *explain* them. Present your answers totally in your own words—do not quote material either from the website, the lecture powerpoints, or anyone else.

A01 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. Make clear whether you are doing an experiment, a prospective study, or a retrospective study. Discuss all of the critical factors involved (operational definitions, values of independent and dependent variables, possible extraneous variables, possible confounding variables, etc.). Identify at least one plausible subject and one plausible procedural confound and describe how you would control for them and whether that would be sufficient to ensure the internal validity of the study.

A02 Japan is ranked 3rd in the world with respect to life expectancy at birth. Some have hypothesized that eating Japanese food is one important factor explaining the longevity of people in Japan. Design a prospective study to determine whether eating Japanese food is a causal factor in well-above-average life expectancy. Identify the target group, the control group, and the independent and dependent variables. Discuss possible extraneous and confounding variables, how you would control for these, and how they may affect the internal validity of the study. Explain why controlling for them is made more difficult as a result of doing a prospective study.