

NEUROSCIENCE FOR ARCHITECTS I
MIDTERM PROJECT | DUE WEEK 6 – Monday 07 May 2007

Using the scientific method, critically evaluate Roger Ulrich's study, "View Through a Window May Influence Recovery from Surgery." Write a critique paper (approximately 3-4 pages, 12 pt font, 1.5 spacing, 1 inch margins). Refer to the handout on "The Scientific Method" for guidance in critiquing a scientific paper. In your evaluation also address the following:

- Introduction
 - Does the introduction give relevant background information that helps you understand what was studied?
 - Why was the topic important to study?
- Hypothesis
 - What is/are the objective(s) of the study?
 - Is/Are the hypothesis or hypotheses clearly stated?
 - Example: "This study compared horizontal versus vertical stripe dummies to measure the effect of stimulus orientation on toad prey catching behavior."
 - What is the question and how does the hypothesis or hypotheses relate to it?
 - Example: "What is the effect of stimulus orientation on toad prey catching behavior?"
- Method
 - Describe the study design and methods.
 - Is the procedure clearly stated so that the study could be replicated?
 - Did they compare similar units? Or are they comparing apples and oranges?
 - Example: Are they studying the effect of stimulus orientation by using similar stimuli (e.g. 3 inch bars) in both orientations, rather than a long bar in the horizontal orientation and a short bar in the vertical orientation?
 - Are all the variables (independent, dependent, confounds) clearly defined?
 - Example: Do they define whether they use the phrase "prey catching behavior" in their study to refer to head movement, binocular fixation, snapping of the tongue, or swallowing? In this case, all are valid measurements depending on the question the scientists are trying to answer. Therefore it is important to identify which variables they are considering.
 - Did they collect data on all relevant variables to answer their question?
 - Example: When studying which of the stimulus orientations elicits prey catching behavior, did they also record the stimulus position (dimensions) relative to the ground and the direction of movement?
- Results
 - Describe the study results.
 - Are all graphs and tables labeled correctly, and do they clearly explain the results?
 - Do the results support or refute the question or hypothesis?
 - Did the author consider any alternative hypotheses?
 - Is there a pattern in the results that is not addressed in the paper?
- Discussion
 - Describe the author's conclusions. Are they sound?
 - Did the author discuss the conclusions in light of other research? Do they cite these references?
 - Did they address any problems in their research, exploring how they might do things differently next time? Do they consider what future research might be done to further answer the question?

- Critique
 - What are the strengths of the study? Why are they strengths?
 - What are the weaknesses or limitations of the study? Why are they weaknesses or limitations?
 - Do you support the author's conclusions? Why or why not?
 - What would you add or say differently?
 - What variables might you substitute or add if you were doing the study?
 - How could this research influence the design process?
 - What additional research (use of a different methodology, other variables to consider, etc.) needs to be done to strengthen the author's findings?
 - Do not make assumptions about how the research can be immediately applied to architectural design (i.e. prescriptive solutions) but rather provide insightful ideas about how further research could influence the design process.

- Properly cite reference/s.
 - Example of APA Format to cite a Journal Article
 - Simon, A. (2000). Perceptual comparisons through the mind's eye. *Memory & Cognition*, 23, 635-647.

DO NOT CHEAT or PLAGIARIZE. You will only get credit for appropriately citing references. **Summarize information in your own words** or use quotes when appropriate. Plagiarism and cheating will be handled under the guidelines set forth in the General Catalog under "Academic Integrity" and will result in a zero grade for this assignment.