

## Study Assessment Questions

When presented with the results of research which includes statistics, you should ask yourself these questions. The answers should guide you in assessing the validity of the asserted conclusions.

1. What question(s) does the study address?
2. Is this study an experiment or an observational study (who decides who gets the treatment)?
3. What is the 'treatment'? (Is there a treatment?) How many treatments are there?
4. Is there a control group? Is a placebo used for the control group?
5. (If controlled experiment) Is the experiment run blind? Double-blind?
6. (If controlled experiment) Is the experiment randomized? (Is the assignment to the treatment group or control group governed by a chance procedure, rather than by judgement or a haphazard procedure?)
7. What are the experimental units?
8. What is the experimental design?
9. What confounding factors may be involved?
10. Are any confounding factors controlled for?
11. What type of data are collected?
12. Are data values measured or self-reported?
13. What potential sources of bias are there?
14. Is the study exploratory or confirmatory?
15. Are the statistical hypotheses articulated before the study is carried out, or are they suggested by the study?
16. How are the data analyzed? Is the analysis appropriate for the design?
17. Is the study exploratory or confirmatory?
18. Is there adequate power? Is the sample size appropriate for the stated aims?
19. Does the study adequately address the question(s) it attempts to answer? (Can the question(s) possibly be answered by this study?)
20. In light of your answers to the above, does the evidence support the conclusions?