How to read and critique a research paper

1. What report is this?

2. Questions:
   a. What was the “big question” of the study?
   b. What was the specific research question of the study?

3. Background and Rationale:
   a. What was previously known about this question?
   b. How does answering the research question(s) add something new to what is already known?

4. Hypothesis: What is the proposed answer to the research question?

5. Approach:
   a. Who or what was studied? (Treatment groups)
   b. What was the experimental design? (Were negative and positive controls included?)

6. Predictions:
   a. What potential results would support the hypothesis (If-then)?
   b. What potential results would refute the hypothesis (If not-then)?

7. In sequential order, what were the major steps in performing the study?

8. What data were recorded and used for analysis, i.e. what was measured?

9. What kinds of data analysis were used?

10. What were the results?

11. What do the authors conclude?
12. What cautions do the authors raise about interpreting the study?

13. Were there any flaws in this study? How could the experimental design be improved?

14. What particularly interesting or valuable thing did you learn from reading the report?

15. If you were a researcher for this study, what is the next hypothesis you would test?

16. Describe the experiment you would design to test your hypothesis.