1. Quote the problem statement as printed in the study.

2. Rewrite the problem statement in your own words. Is the authors' version clear enough to enable you to do this easily?

3. Evaluate the problem in terms of each of the criteria below. Give both a verbal description, particularly of shortcomings, and a numerical rating.

   3a. Workability

   3b. Theoretical value

   3c. Practical value
Variables

1. What is (are) the independent variable(s)? (Or selected/predictor/input variables)?

2. What is (are) the dependent variable(s)? (Or predicted/criterion/output variables)?

3. What is (are) the moderator variable(s), if any?

4. What are the important control variables?

5. What are possible intervening variables?

6. Are there any important variables that might have been included but were not? If so, list them and label them as to type.
Hypotheses

1. Were hypotheses stated in the study? If so, quote them.

2. Rewrite the hypotheses in your own words. Is the authors’ version clear enough to enable you to do this easily?

3. For each hypothesis answer the following:

   3a. Is it specific-directional, general-directional, or null? (A specific-directional hypothesis states expected differences and specifies their direction; a general-directional hypothesis calls for differences but does not specify their direction; a null hypothesis states there is no difference).

   3b. Is it supported by sufficient literature or argument?

   3c. Is it clear and understandable? If not, indicate how it might be improved.

   3d. Is it consistent with the methodology and design?
Supportive Material

1. In a few sentences, what is the context of the problem? Is the context clear and sufficiently established?

2a. What is the magnitude of the literature review?

2b. How empirical and up-to-date is it?

2c. Does the literature review focus on the variables and the hypotheses?

2d. Is it well organized (introduction, subheads, summary)?

2e. Try to summarize the literature review in a few sentences.

3a. Do the investigators attempt to establish the significance of the study using argument and/or supportive literature?

3b. Is their attempt convincing?

3c. Summarize it in a sentence or two?

3d. Suggest a point of significance that might be added.
Operational Definitions

1. How did the researchers operationalize each of the independent variables? (If operational definitions are lacking, try to write them yourself, based on the methods used).

2. How did the researcher operationalize each of the dependent variables?

3. How did the investigators operationalize each of the moderator variables?

4. How did the investigators operationalize each of the important control variables?
Measurement & Manipulation of Independent & Dependent Variables

1. For each independent variable, answer each of the following:

1a. Was it selected and measured or actually manipulated?

1b. Describe briefly how this was accomplished.

1c. Can you tell how suitable (or valid and reliable) the measurement or manipulation was, on the basis of both face validity and documentation?

2. For each dependent variable, answer each of the following:

2a. Describe briefly how it was measured.

2b. How valid and reliable was its measurement as documented?
1. For each moderator variable, answer each of the following?

1a. Was it selected and measured or actually manipulated?

1b. Describe briefly how this was accomplished.

1c. Can you tell how suitable (or valid and reliable) the measurement or manipulation was, on the basis of both face validity and documentation?

2. For each control variable, answer each of the following:

2a. Was it measured or manipulated?

2b. Describe briefly how this was done.

2c. Can you tell how suitable (or valid and reliable) the measurement or manipulation was, on the basis of both face validity and documentation?
Research Design

1. Was the design experimental, quasi-experimental, ex post facto, causal-comparative, or a non-design?
   
   Diagram the design.


3. How did the investigators control for history bias? Be specific.

4. Were there any other sources of bias particularly controlled for or particularly uncontrolled for? If so, describe the procedure(s) or lack thereof.

5. How internally valid was the design?

6. Describe the population to which the results can be generalized.

7. How externally valid was the design?

8. Describe the settings to which the results can be generalized.
Statistical Analysis

1. Were statistical tests used? If so, name them.

2. Were the statistical tests used appropriate for the level of measurement?

3. Were the statistical tests used the proper ones or the most suitable ones for the design?

4. Was their use, and results, clearly described?

5. Should the investigators have performed additional statistical tests or presented additional statistical results?

6. Did the presentation of statistical results include graphics and/or tables? If so, were they understandable and easily interpreted?

8. Describe the settings to which the results can be generalized.
Presentation and Discussion of Results

1a. Briefly describe the findings of the study

1b. Does the article include an adequate and clear summary of the author's findings?

1c. Were the findings clearly related to the study's problem and hypotheses?

2a. Give a brief interpretation of the findings to indicate why they came out as they did or what they mean.

2b. Did the authors offer and support meaningful and convincing interpretation of the findings that helped you understand the results?

3a. Briefly state a conclusion that could be drawn from the study and a recommendation based on that conclusion.

3b. Were meaningful conclusions and recommendations offered?

4. Limitations mentioned?