# **In-Class Activity on “*How to Review a Paper”***

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**Peer Review Activity**

***Assignment:***

Using what you have learned using the self-review template throughout the semester and our Peer Review In-Class Activity, read your assigned report(s) and complete the attached Peer Review template.

**Evaluation of the Report**

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| **Abstract:** Does it accurately address the key points of the report? Does it address the following four points in a concise manner?   * *Why?* What is the goal of this report; what research questions are being addressed? * *How?* Does it outline the approach used to answer the research questions? * *What was done?* Does it summarize the key activities of the approach? * *What was found?* Does it provide conclusions; do the conclusions address the original goal? |
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| **Introduction:** Does it identify a problem and demonstrate why it is worthwhile to a reader? Does it establish a connection from what is already known (literature) to the current work? Does it address the following points?   * Present the main topic of the report * Explain why the topic is important * Outline a specific plan to address the topic * Finish with a well-defined goal and purpose for the report |
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| **Results:** Are any claims without supporting results being presented? Are the results presented clearly and accurately? Are all results obtained addressed? Remember, once you have obtained data, you cannot pretend it does not exist! Be sure to note issues of clarity.   * Are all figures and tables integrated and discussed clearly without simply repeating contents? * Are captions clear and descriptive? Are all axes in plots and columns/rows in tables clearly labeled? * Are the results presented in a logical manner? Just because you obtained them in that order does not mean it will make the most sense to a reader. |
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| **Discussion:** Are the results connected to concepts or simply restated from the above section? Are key points from the results reemphasized and compared with related examples? Are any claims made supported by the results presented? Results should not be restated in this section without interpretation.   * Are the results interpreted accurately and the interpretation clear to the reader? * Are there important results presented in the above section that have not been interpreted here? * Are there any claims made that do not have evidence to support them? |
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| **Conclusions:** Are the conclusions accurate based on the discussion above? Do they simply restate the discussion or do they show cumulative analysis and connect to what was established in the introduction? What is the “take-home message”? |
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| **Supporting Information / Methods:** Do the methods provide enough detail for a student at the same level to repeat the procedure and obtain analogous results? Are they clear and detailed? This means that all synthetic procedures should include details for both the procedure performed and all characterization data. |
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**Writing Your Review**

***Summary:***

***Specific critique:***

* Conceptual
  + Reliability of results
  + Completeness of the study presented
* Major
  + Identify contradictions, gaps, inconsistencies, mistakes
  + Point out vague and/or ambiguous parts of the article
  + Conduct quick literature search to address any lack of awareness of already published work
* Minor
  + Identify typos (particularly in schemes)
  + Find errors in grammar
  + Point out lack of clarity in any sections

**Final Recommendation (Check one)**

\_\_\_ Publish as-is (no changes)

\_\_\_ Minor revisions (style and grammar, formatting data, clarification of statements, provide more details for experiments)

\_\_\_ Major revisions (extensive restructuring and rewriting of the manuscript is needed)