Claremont Graduate University
A MEMBER OF THE CLAREMONT COLLEGES

Center for Writing & Rhetoric
150 E. 10th Street
Claremont, CA 91711
909-607-0012
cgu.edu

## IMRaD Paper Outline

1) **Introduction**
   a) Introduce the problem underlying your research question.
   b) Explain the significance.
   c) Review of background or known information on your topic.
   d) Provide a paragraph that covers the research questions and logically presents hypotheses.
   e) Refer to the CARS Model here for further guidance. ***
   f) Literature reviews are often integrated as a section of the introduction before the methods. ***

2) **Methods**
   a) Participants and Design
      i) Participants: How many? Did you do a power analysis? What were the ages, genders, and ethnicities (if applicable)?
      ii) Design: What were your independent variables and dependent variables? How was the experiment counterbalanced (if applicable)?
   b) Materials
      i) What were your stimuli?
      ii) Explain what materials were used to measure your independent and dependent variables. Cite if necessary, but mostly if you need to give credit to those who assembled to scale/stimuli or to justify choices that might raise a red flag for reviewers.
      iii) There should be little to no overlap between the Materials and Procedure sections.
   c) Procedure
      i) What did you do? This should be written in a clear and specific way, so that a reader could do at least a partial replication of your work after reading this section.
      ii) Cite where needed, such as when decisions about time or procedure need to be corroborated by previously published research.

3) **Results**
   a) Describe what you found out from your research, but this is not the place to discuss the implications of your findings.
   b) Start by discussing data cleaning (if necessary).
   c) This is where you present the analysis. It should be clear why you used your analytical approach.
   d) If you analyze the data with more than one technique, it should be clear how each of those approaches supports your initial RQs/hypotheses and the justification for the chosen order of analyses (i.e., repeated measures ANOVA, one-way ANOVA, post-hocs).

**4) Discussion**
    a) Explain the significance of your findings.
    b) Describe how they support your thesis.
    c) Discuss limitations of your research—suggest what future research would address those limitations (but keep any studies you plan right now as hold-back info).
    d) End with a paragraph that highlights the importance/contributions of your research. The last thing the reader should see is a positive take-away.

**Common problems in IMRaD drafts:**
- The Abstract does not provide a clear statement of the main findings.
- The Introduction does not communicate clearly why the research is important.
- The Methods section is not detailed enough or is disorganized.
- The Results section provides comments and explanations instead of simply reporting results.
- A general lack of topic and conclusion sentences.
- The document reads like a list of facts, rather than a coherent narrative.

**Further Resources:**
https://apastyle.apa.org/instructional-aids
https://writingcenter.gmu.edu/guides/writing-an-imrad-report
https://owl.excelsior.edu/research/outlining/outlining-imrad/