**IMRaD: Methods and Materials**

How do I ensure that my Methods & Materials section explains the materials and process used in my experiment/research in such a way that another scientist or researcher could take the same actions and get the same results?

Check for: how, what, and why.

<table>
<thead>
<tr>
<th>How?</th>
<th>How was your experiment/research conducted?</th>
</tr>
</thead>
<tbody>
<tr>
<td>What?</td>
<td>What materials/subjects did you use? (Be specific!)</td>
</tr>
<tr>
<td>Why?</td>
<td>Why did you use those methods? (Think about your hypothesis.)</td>
</tr>
</tbody>
</table>

* Your why (including reasons and rationale) explains the significance of your specific actions in achieving your exact results.

While an experiment or study might not be unique, the way that you executed it likely is. Including the specifics of your method as well as your rationale for executing steps in that specific way (to attempt to prove your hypothesis) ensures that another scientist or researcher could do the same study, the same way, with the same results.

**Strategies:**

1. Close your eyes and reimagine yourself in the lab or the field. What steps did you take? What did you use to execute those?
   
   Talk yourself through the experiment/study and write/type as you talk. (You might even use a recording to pick out the most significant details or speech recognition software to get all of your ideas down.)

2. Now, read through a few instructions or a small section of your “Methods,” and ask yourself, “Why did I have to do it that way?”*
   
   *HELPFUL HINT* Once the “how” and “what” are in place, it might be easier to insert in the “why,” or reason for your actions.

3. Alternately, for a drafted section, use the checklist above to highlight those components that are present and more clearly see what’s missing. Did you include: how? what? why?

4. Lastly, use your rubric/journal’s guidelines as a Proofreading Checklist, to ensure that your Methods section matches the expectations of your professor/course or field.