Chapter III: HOW TO READ A SCIENTIFIC ARTICLE

1. **Read the Introduction first**

   The **Introduction** will provide more background information about the problem the researcher(s) are addressing and reveal the big question(s) guiding the research.

2. **Identify the Big Question**

   Instead of figuring out "what the paper is about," try to figure out what problem the article or field is trying to solve. Take note of what you think the big question is.

3. **Summarize the background in five sentences or less**

   Use your own words to figure out what is already known about the problem, the limitations of the research, and what--according to authors--needs to be done next

4. **Identify the Specific Questions**

   By identifying specific questions, you can understand what exactly the authors are trying to answer with their research. Sometimes there might be only one specific question (aside from the big question), but other articles might contain many detailed questions. Depending on the research, they may be testing multiple hypotheses.

5. **Identify the Approach**

   Within the background or introduction, the author(s) should reveal what they did to address the specific questions.

6. **Read the Methods Section. Draw a diagram for each experiment, showing exactly what the researchers did**

   Literally, draw it out. Include as much detail as you need to fully understand the work. If something is outside of your specialty or area of knowledge, be sure to define terms that are new to you and write out your own understanding

7. **Read the Results Section and write one or more paragraphs to summarize the results in your own words**

   You don't yet need to determine what the results mean, just write down what they are.

8. **Do the Results answer the Specific Questions identified earlier? What do you think the results mean in relation to the specific questions?**

   Do not move on until you have considered this and made notes about it. It's perfectly OK to change your mind in light of the researchers' interpretations.

9. **Read the Conclusion/Discussion/Interpretation Section**

   Depending on the article or the journal preferences, this will probably be called one of these three things, but it's typically one of the last sections of an article before the references

10. **Now, go back and read The Abstract**

    Take the time to go back to that very first introductory paragraph that densely summarizes the article.

11. **What do other researchers say about this article?**

    You can find out more about the impact, influence, and interpretation by the scholarly community by seeing what other researchers say about this article or by how it has been used or dismissed since publication.