

how to read a scientific paper (and not cry)



The first time I read a scientific journal article, I cried. I stared at the foreign words while wondering if I really knew English. Needless to say, I've cut down the amount of time I need to digest a paper from 6 hours to about an hour (more or less depending on why I'm reading it). Here is how I read a paper now in three (easy?) steps - along with some tips and tricks I've developed along the way. Hopefully they help!

1

Read the abstract

You can skim the rest of the paper too, but I usually just read the abstract first.

Questions to keep in mind:

- How relevant is this study to your research/question/hypothesis, etc.?
- Does the argument make sense?

2

Do you know the topic well?



Skip to the discussion.

Questions to keep in mind:

- How are the authors justifying the results?
 - Does their reasoning make sense?



Read the introduction. Google words you don't know (but don't worry if you don't understand everything)

Move onto the discussion.

3

Now , make a judgement call....

Depending on why you are reading the paper, there are a few different things you can do with the information you've learned so far.

- For a presentation/class/lab meeting:
 - Why did the authors decide to pursue this question, what are their hypotheses, what did they conclude?
 - Review the methods, but if you don't understand, bring it up during a meeting or ask someone! It's more important to know why they chose a particular method to test their hypothesis. (P.S. Usually all the flaws of the study are revealed in this part)
- For your own knowledge or research:
 - Go back and read the introduction for background if needed
 - Focus on the figures and results (Do the results agree with the argument?)
 - Do you really need to know the methods? If not, you can skip methods and materials to get through more papers.