Dissecting a Paper Checklist

Before you read

* Identify your purpose for reading the article
* Read the title & abstract. Is it relevant?

Skim the paper

* Abstract: Write down 1 sentence that summarizes the major findings of the paper.
* Skim to learn more about the results:
  + Read the last paragraph of the introduction and the first paragraph of the discussion
  + Scan each figure and read each results subheading

Read the paper strategically & critically

* Save the paper: as a file or a bookmark with a memorable & descriptive name, or in Mendeley with tags and notes
* Title: Note the authors, journal, and year
* Introduction:
  + Highlight any methods or keywords you don’t understand. Stop reading and go look these up.
  + Make a sketch of what is known and unknown.
  + Write down papers to read later.
* Methods:
  + Be able to explain what each assay measures, what its limitations are, and whether the experimental design is appropriate. Discuss these with your mentors and peers and check out JOVE.
  + Write down assays you want to apply to your own research to research later.
* Results: for each figure, explain…
  + Hypothesis
  + Methods
  + Results
  + The authors interpretation and y our interpretation
  + Potential caveats and criticisms
* Discussion:
  + Note how important this paper is to the big picture and how it relates to your research
  + Record the main conclusions
  + Draft future directions for yourself based on this paper
  + Write down any insights or hypotheses for your own research that this paper has inspired.