How I read a study ...

There are a lot of different approaches you can take to reading manuscripts that describe the results of an experiment. That being said, anytime you include a citation in your thesis, any presentation, or in any document, you must have read the entire paper.

There are times that I read a paper from front to back and in the order that the paper is published. However, there are many times when I jump around a paper following a process that I am trying to formulate a good understanding of the results that may (or may not) be unique to the authors. Below I have described the order that I will take ... this is not a set order and depending on the information I read, I may use a different order. In all cases, however, the model ends with a final reading of the paper from front-to-back.

As you read more published papers, you will find yourself developing your own approach ... this is good! But always remember the ‘law’ that you have to read the entire paper before citing it. Finally, remember the more you read papers, the better you will write ... so read at least one paper every day.

1. Title
   • Has to be interesting and give me insight as to what information will be presented in the paper.
   • If the purpose is not clear, I look for the purpose statement either in the abstract or end of the introduction.

2. Abstract
   • I read the last sentence ... which is typically the conclusion of the paper or the main take-home point.
   • If the conclusion is not clear, I read the last paragraph of the discussion ... which is where the conclusion is typically presented.

3. At this point, I typically read the results and look at figures/tables to understand what data are being presented that support the conclusion.

4. Methods
   • Then I go through the methods section to understand how the data were generated and I look for information on:
     - Subjects
     - Instruments
     - Procedures
     - Data reduction steps
     - Statistical analysis(es)

5. Then I read the discussion looking for these pieces of information:
   • What was the most important observation (usually first paragraph).
   • How did the data compare to other published papers?
   • What confounding factors were considered?
   • What were the limitations of the experiment?
   • What needs to be done next?

6. Finally, I'll read the paper again starting with the introduction.