READING A SCHOLARLY RESEARCH ARTICLE

Since they are written by experts in a discipline, scholarly and peer-reviewed articles can be dense or difficult to understand. Here are some strategies you can use to extract meaning from articles without being overwhelmed.

The Parts of an Article
Most scholarly research articles follow a specific format with the following sections:

- **Abstract** – A quick summary of the entire article.
- **Introduction** – The purpose/hypothesis of the study is articulated, and the previous research framing the current question is reviewed. (“What We Already Know and What We Want to Know”)
- **Methodology** – A very precise accounting how the study was carried out - who were the subjects, under what conditions were they tested, etc. (“What We Did”)
- **Results** – The data from the study. Often presented with dense mathematical formulas, and with charts, graphs, or other visual representations. (“Our Numbers”)
- **Discussion** – A narrative review of the data and whether it proved or disproved the original thesis. (“What We Found Out and Why It’s Important”)
- **Conclusion** – Usually restates the results in straightforward language and discusses future directions for research. (“What We Still Don’t Know”)
- **Bibliography** – The research the authors consulted to inform their own thoughts and design their study.

The Reverse Oreo Method
Everyone is familiar with Oreo cookies – dry crumbly cookies around a delicious middle.

Scholarly articles are structured in the **reverse** of an Oreo, meaning that the “good stuff” is on the **outside**: the Abstract, Introduction, the Discussion, and the Conclusion. These sections are usually in simpler, more direct language, and speak clearly to the purpose of the study, what the results were, and what the implications of the findings might be.

The “dry stuff” is on the **inside** of the article – the Methodology and the Results. A key point of the scientific method is that results must be able to be replicated to be valid, so Methodology shows **exactly** how the study might be reproduced, but sheds little light on the “big picture” (unless you’re actually going to replicate the experiment). The statistical analyses in the Results are important, but is just the math verifying the significance of the results.

**The Takeaway:** Read the Introduction, Discussion and Conclusion **first**. Skip the middle sections until you have a handle on the purpose and findings of the study. **Then** go back and re-read the article with these sections. The data, charts, and graphs will now be in context and likely make more sense.
Reading for Meaning
As you are reading the article, here are some questions you should ask to help your understanding of it:

- **Identify the claim.** What did the researchers set out to prove? (You will usually find this in the Abstract and the Introduction.) It should also articulate the context, or why the researchers are studying this specific subject. Is there a gap in our knowledge? New information in the field? A controversy in need of some clarifying facts?

- **Determine the scope.** Who are the subjects of the study and what are their characteristics – species, geography, gender, age, ethnicity, etc. What was the sample size?

- **Evaluate the method.** How did the researchers test their subjects? Under what conditions (natural, lab setting, etc.)? What were the independent and dependent variables in the study?

- **Examine the results.** Were they significant? If so, what does this indicate about the hypothesis?

- **Find the gaps.** What didn’t the researchers study? What might be the next logical follow-up to this research? Did the researchers identify any shortcomings of the study itself? If there is an opposing viewpoint or contradictory information, was this acknowledged and addressed head on? How might any problems with the study be avoided in future research?

Using the Citations
No research happens in a bubble – it always connects to a larger discipline or area of study. So, in order to understand if a study will add to the field of knowledge, researchers must provide the context for their work.

This is usually articulated in the Introduction, where previous research is cited to show what is already known about the subject, and why this study will add something new. These citations are a wealth of additional information, and are often an excellent place to find multiple sources on a topic.

- As you read, highlight the sections of text that seem most relevant to your topic and have an in-text citation after them – i.e. (Brown & Miller, 2006).
- Using the names in the in-text citation, find full citation for the article in the Bibliography.
- Read the title to that article. Does it sound like it supports the current research? Is it in opposition to it? If you need more than one source on a topic (which is usually the case) would this be a good article to find and read?
- If so, find the article using the *Journals* link on the library webpage. Search with the Journal Title from the citation to see if we have the article at the Fitchburg State library. Even if we don’t, we can still get it for you through interlibrary loan.

Peer Review
Peer review is important because it means the study has been reviewed by other researchers and experts in the field, and these experts have provided specific feedback to the original authors. Peer review is intensive and can take months, so a study that has been peer-reviewed indicates a high level of authority and reliability. Most library databases allow you to limit a search to just peer-reviewed articles.

Questions? Ask a Librarian! reference@fitchburgstate.edu · 978-665-3223 · IM: librariansfsu

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