



Welcome, BIO 407

Library Session - Preparing Your Literature Review
feat. Ginny Boehme, Science Librarian



Today's session

Primary & secondary research

Finding articles for literature review

Citation management

Citing research

Wrap up



Primary & secondary research

Take a look at the 2 groups of articles in the folder linked below. Pay particular attention to each article's structure and format. How are the two groups similar? How are they different? Be prepared to discuss as a class.

<https://tinyurl.com/bio407ex1>



Primary research

Typically follows IMRAD format (Introduction, Materials & Methods, Results, and Discussion)

Reports on original research or data

Secondary research

Typically has an introduction; other section headings will vary

Summarizes, analyzes, and/or synthesizes original research, but does not report on any new findings



Finding primary research

Most scientific databases will let you search for specific document type.

Be careful though! Sometimes the data is not perfect. **ALWAYS** double-check any source you find.

Let's see it in action: www.lib.miamioh.edu



Citing research

Take a look at the articles in the folder linked below. What do you notice about how they cite other research? Be prepared to discuss.

<https://tinyurl.com/bio407ex2>



Paraphrasing

“Few laboratory creatures have had such a spectacularly successful and productive history as *Drosophila*. It first entered laboratories about 1900, revealed its talent for experimental genetics to Thomas Hunt Morgan and his students at Columbia University in the early 1910s, and after some ups and downs in status is still going strong almost a century later.”

(from Kohler, R.E. 1994. The Lords of the Fly. The University of Chicago Press, 321 pages.)



Paraphrasing - example 1

“Few laboratory creatures have had such a spectacularly successful and productive history as *Drosophila*. It first entered laboratories about 1900, revealed its talent for experimental genetics to Thomas Hunt Morgan and his students at Columbia University in the early 1910s, and after some ups and downs in status is still going strong almost a century later.”

(from Kohler, R.E. 1994. The Lords of the Fly. The University of Chicago Press, 321 pages.)

Despite some ups and downs in status, nearly a century after the fly revealed its talent to Thomas Hunt Morgan and his students, *Drosophila* genetics research continues its spectacularly successful history (Kohler, 1994).

Phrasing is copied almost exactly.



Paraphrasing - example 2

“Few laboratory creatures have had such a spectacularly successful and productive history as *Drosophila*. It first entered laboratories about 1900, revealed its talent for experimental genetics to Thomas Hunt Morgan and his students at Columbia University in the early 1910s, and after some ups and downs in status is still going strong almost a century later.”

(from Kohler, R.E. 1994. The Lords of the Fly. The University of Chicago Press, 321 pages.)

No model organism has been so amazingly useful and effective as the fruit fly. The fly came on the scene as an experimental tool at the beginning of the 20th century, was adopted by Thomas Hunt Morgan and his Columbia pupils at Columbia University around 1910, and (despite some fluctuations in attention paid to it) is still a widely used experimental system (Kohler 1994).

Sentence and paragraph structure is too similar to original.



Paraphrasing - example 3

“Few laboratory creatures have had such a spectacularly successful and productive history as *Drosophila*. It first entered laboratories about 1900, revealed its talent for experimental genetics to Thomas Hunt Morgan and his students at Columbia University in the early 1910s, and after some ups and downs in status is still going strong almost a century later.”

(from Kohler, R.E. 1994. The Lords of the Fly. The University of Chicago Press, 321 pages.)

Drosophila is model organism with a rich and useful legacy. Upon arriving on the scene at the turn of the century, the fruit fly soon became the organism of choice for Thomas Hunt Morgan and his Columbia University pupils. Despite fluctuations in status, fly research is still central to the progress of genetics (Kohler, 1994).

Sentence structure is much better, but paragraph structure is still too similar to original.



Paraphrasing - example 4

“Few laboratory creatures have had such a spectacularly successful and productive history as *Drosophila*. It first entered laboratories about 1900, revealed its talent for experimental genetics to Thomas Hunt Morgan and his students at Columbia University in the early 1910s, and after some ups and downs in status is still going strong almost a century later.”

(from Kohler, R.E. 1994. The Lords of the Fly. The University of Chicago Press, 321 pages.)

Thomas Hunt Morgan and colleagues at Columbia University were among the first to use the fruit fly *Drosophila* as a model organism, adopting it as an experimental system around 1910. Since then, the popularity of the fly has waxed and waned somewhat, but the breadth and depth of current research indicates that *Drosophila* continues its legacy as an incredibly important research tool (Kohler, 1994).

Good paraphrasing!



Paraphrasing best practices

- Pick passage that packs a punch → if it's not important, why are you using it?
- Read passage several times → make sure it's saying what you think it's saying
- Try to distill passage down to author's main point → should be no more than a sentence or two
- Summarize evidence in rest of passage → how is the author supporting the main point?

Want to get further away from the original? Paraphrase your paraphrase!



Wrap up

Questions?

Comments?

Concerns?