

Monica Rother, Asst. Professor
Dept. of Environmental Sciences, UNCW
Final Project - Information Literacy Faculty Fellowship
Spring 2021

Project title: *Using Review Papers to Identify Research Gaps*

General overview: This project presents a set of in-class exercises to be completed over the course of 6 days in an advanced undergraduate or graduate course. The focus is to improve understanding of review papers and how they can be used to identify research gaps in a field of study. An extension of this project would be to use the research gaps as topics for student research projects also completed in the same semester. I plan to use these exercises in my Wildland Fire Ecology class (EVS 414/514), but they would work well in many UNCW classes.

Time required: 6 days – can be continuous or spread out over the semester.

Frames involved: All 6 frames from the Framework for Information Literacy for Higher Education are relevant. Frames in italics are especially important.

- *Authority Is Constructed and Contextual*
- *Information Creation as a Process*
- Information Has Value
- Research as Inquiry
- *Scholarship as Conversation*
- Searching as Strategic Exploration

Day 1 – Introduce scholarship as conversation

- a. Opening exercise. Share the Jerry R. Choate quote that Peter Fritzler introduced through the Spring 2021 ILFF curriculum. “It’s never finished... it’s just published.” Have students reflect on the quote in their notebook. Then share with a neighbor. Then discuss as a whole group.
- b. Instructor should then present some examples of intriguing conversations that have happened in the field of study that is the focus of the class.

Day 2 – Introduce review articles as an important place where conversations occur

- a. Assign a “classic” review paper in advance of the workday. Before Day 2, students should complete an assignment at home that prompts them to identify:
 - Objectives/focal area(s) of the review
 - Areas of consensus vs. areas that remain foggier
 - Types of sources cited and why
 - Language including any speculative language
- b. Have students discuss the review paper and their assignment responses in small groups. Then bring the discussion to the whole group.

Day 3 – Article 2 – students review a more recent review article on the same general topic

Repeat Day 2 steps, adding in discussion of what seems to have changed in the conversation since the original review paper.

Day 4 – Article 3 – students review a more recent review article on the same general topic

Repeat Day 2 steps again, adding in discussion of what seems to have changed in the conversation since the first two review papers.

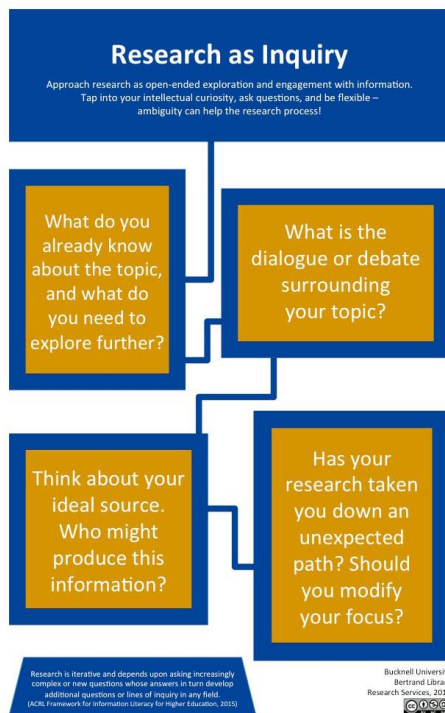
Day 5 – Identify research gaps

Students will work in small groups to identify one or more research gaps that come out from reading the review papers. Then each group will present their ideas to the whole class.

Day 6 - Choose a topic for a research project

Student reflection questions:

1. What topic are you proposing and why?
2. How does this contribute to an ongoing conversation within wildland fire ecology?
3. What are some of the questions you hope to answer through your research project?
4. Students could also work on the below brainstorm:



Students will discuss their answers with a neighbor and then share out as a whole group. We will agree as a whole group whether the topic does fill a research gap and is of appropriate scope (not too broad or too narrow).