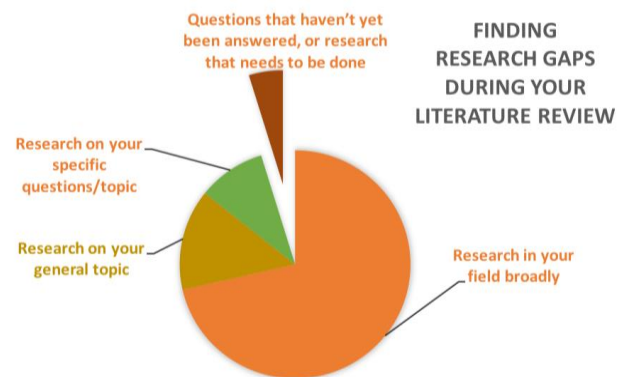**University of Vermont Graduate Writing Center**
An Introduction to Literature Reviews
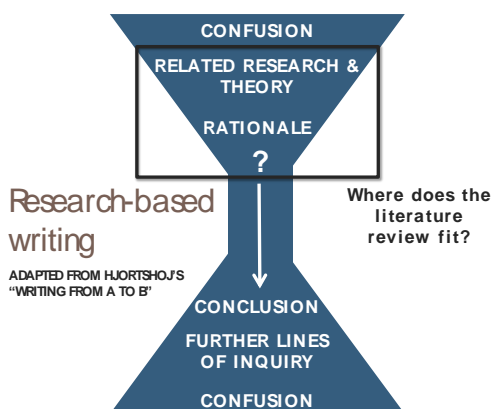
Purposes of Literature Reviews

Literature reviews tell the reader about the current state of the field by examining the breadth and depth of work that has been done so far on a particular problem or area of interest. Literature reviews also identify gaps where more research/work is needed.

Some literature reviews are written as stand-alone essays that summarize the state of research or major trends in a given field. More often, a literature review is found in the introductory section of a longer work (article, proposal, thesis) leading to and providing context for the author's research question, hypothesis, or thesis.

In a research article, proposal, or thesis, a literature review typically introduces the author's specific research question by *first* introducing the topic and its significance and *also* by telling the story of what has been done in the field or in related fields in relation to that topic. This story—of what is and is not known about a topic or what is and is not well understood about it—serves not only to illustrate an author's familiarity with a field's major findings, debates, agreements, and obstacles but also (and especially) to spotlight the gap the author's study will address.

FINDING RESEARCH GAPS DURING YOUR LITERATURE REVIEW

Questions that haven't yet been answered, or research that needs to be done

Research on your specific questions/topic

Research on your general topic

Research in your field broadly

Reading to Write

CONFUSION
RELATED RESEARCH & THEORY
RATIONALE
?
Research-based writing
ADAPTED FROM HJORTSHOJ'S "WRITING FROM A TO B"
Where does the literature review fit?
CONCLUSION
FURTHER LINES OF INQUIRY
CONFUSION

Writing a literature review begins with a certain kind of reading: to understand and assess what is known in a field about a particular topic you are interested in and to identify questions that haven't yet been answered and research that needs to be done—a gap that can point you toward your research question. For instance, if you are interested in the production of almond yogurt as a non-dairy substitute for lactose-tolerant individuals and you find that almond yogurt texture is an unsolved problem, that's a gap that might lead you to ask, "What production method could solve this problem?

You can avoid becoming swamped by all the literature in a field (e.g., everything ever written about lactose intolerance or almond foods or non-dairy yogurt substitutes) by considering that your proposed research question will address *one* area of promise and of confusion or uncertainty in your field (e.g., the promise of almond yogurt's health benefits and the problem of its unappealing texture). Relevant literature for your review, then, is that which helps you introduce the promise/significance and the specific area of confusion or uncertainty you are targeting.

As you review publications for possible inclusion in your literature review, use these questions (adapted from Paul and Elder's Critical Thinking Framework) to assess the work *and* its relevance to your focus:

- Is this research clear? What examples do the authors provide to support it? Does their argument require more clarification or elaboration?
- Do the results make sense and seem accurate? Does the evidence support the conclusions? What other factors might have influenced these results?
- Do the results contradict results in other studies? Can I verify their results with my work?
- Can the author's methods or ideas be applied more broadly, or more specifically to my area of interest?
- How does this research inform my research question? my methods? What matters about this particular study/article/publication? What would be my reason including it in my literature review?
- Are there issues or questions the author ignores or does not address? Is there another perspective this author should be considering?
- Is the author being fair to other studies/works? And am I accurately depicting this author's ideas and conclusions?

Through these questions, you can (1) identify the most relevant and significant literature related to your topic; (2) begin to build the story of work in this area; and (3) identify the gap(s) in the research, helping you form or refine your research question.

Conceptualizing a Literature Review

Literature reviews frequently take the shape of a funnel—starting with a broader statement (e.g., the growing popularity of almond-based products as non-dairy substitutes) that funnel toward your question, hypothesis, or thesis (to use X method to improve almond yogurt's texture). But literature reviews can also be structured like a jigsaw puzzle (showing the pattern and connections of overlapping studies and fields), debate (positioning yourself in relation to or departing from competing camps), or timeline (showing the series of discoveries or trends over time leading to this moment and your project).

As a funnel, your literature review draws a reader from broader concerns and findings of a field (for example, the production of almond yogurt) to your specific aim (to test a method for improving almond yogurt's texture). By the time the reader reaches the funnel's narrowest point, they should be convinced by the research story you've told that there is indeed a gap that would be useful or important to fill—and that your project has promise for doing so.

As a jigsaw puzzle, you treat each study or set of studies you're drawing upon as equally pertinent to your research question: for example, a set of studies on the health benefits of almond yogurt, on consumer dissatisfaction with nondairy yogurts, and on methods that improve texture in other nut-based products all informing a proposed new method to improve the texture of almond yogurt.

As a debate, your literature review organizes sets of studies into competing or conflicting "camps" (for example, locust bean versus xanthan gum as an almond-yogurt thickener) that create confusion or uncertainty that your study proposes to clarify or resolve

As a timeline, your literature review describes chronologically the important trends, developments, and challenges concerning your research topic over time, pointing toward the direction your research will take. For instance, your literature review might tell the story of improved production methods for soy dairy substitutes that lead to and inform your proposed method for almond yogurt production.

Organizing a Literature Review

A literature review isn't an annotated bibliography, organized by source (e.g., Paragraph 1 summarizing and assessing Study X, Paragraph 2 summarizing and assessing Study Y etc.). Instead, they are organized by *trends*, *themes*, *agreements*, and/or *disagreements* across studies. Try these four approaches to conceptualizing your move from discussing individual articles or studies to teasing out the key themes that will shape the story you tell about the gap you've identified and your proposed project.

1. Brainstorm your responses to these questions (adapted from the Penn State Graduate Writing Center):

- What is known about this research area?
- What are the key arguments, characteristics, and/or concepts in the literature?
- What are the existing debates and theories?
- What are the common methodologies?
- What research designs or methods appear unsatisfactory?
- What agreements and overlaps exist across different studies?
- What's new, different, or controversial?
- What needs further testing?
- What evidence is lacking, inconclusive, contradictory, or limited?
- Do these sources suggest chronological development? Do they show different approaches? Ongoing debate? Build from a seminal study? Suggest a paradigm shift? (These questions point toward the *shape* of the review you may write: funnel, jigsaw puzzle, debate, or timeline.)

2. Generate "theme buckets" (adapted from Cisco, *Teaching the literature review: A practical approach for college instructors):* Identify the significant trends, agreements, debates etc. that you will use to organize your discussion. Then look at each publication you'll drawn on and consider which theme bucket *or* buckets that publication belongs in. For example, one study on almond yogurt may go with other studies providing evidence of its health benefits (Theme Bucket A) *and also* detail the challenges of producing an almond yogurt with consumer appeal (Theme Bucket B).
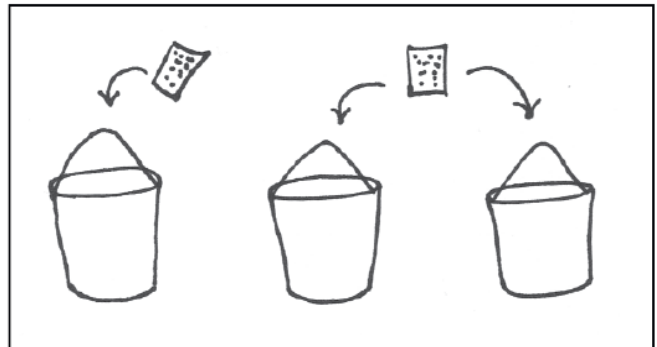
3. Try using any of the below paragraph-starters to help you consider your move from discussing discrete articles to talking about trends and themes across studies (adapted from the Carnegie Mellon Global Communication Center):

- Three important areas of X have received attention …
- Research on X has been approached from two perspectives …
- The most important developments in terms of X have been …
- One trend in the research on X is …
- Scholars on X seems to agree that …
- Numerous studies support the claim that …
- Strong evidence exists for …
- The evidence for Y is mixed …
- A debate has arisen regarding …
- There are two (or more) conflicting views on …
- Views on Y fall generally into two camps …