

## THE ASSIGNMENT: Literature Review

### DEADLINES

Literature Review Draft Due (Graded) – March 22 @ 11:59pm

Literature Review Due (Graded) – March 31 @ 11:59pm

### What is a literature review?

A literature review is a “critical analysis of a segment of a published body of knowledge through summary, classification, and comparison of prior research studies, reviews of literature, and theoretical articles” (University of Wisconsin Writing Center). A literature review is NOT an annotated bibliography. Annotated bibliographies are focused on summarizing information from different sources and are broken up by source. Literature reviews are often focused around a general theme or trends in the literature and require summarizing sources, as well as synthesis of information from different sources to highlight themes or trends. It is written in a narrative format.

Adapted from Thompson Writing Program Writing Studio

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### PURPOSE & GOALS

Knowing how to navigate research, synthesize information from many different journal articles, form informed questions based on research, and argue the importance of a central question or idea that arises from the research literature, are valuable skills both for scientists, as well as individuals, who use science in their career. The skills you will use in this project will help you be a better interpreter of research. You will also learn how to identify gaps in the literature, as it relates to your policy memo, and identify key recommendation areas for your memo.

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### PROCEDURES

#### Audience

The audience for the literature review is your scientific peers. You may write a literature review for any number of reasons in STEM fields. A PI (principle investigator) of a lab may ask you to write a literature review for a dissertation outlining all the current research in your area of study to identify research questions. You may write a review article (a peer-reviewed literature review) to highlight gaps in the research in your field that you want to share with the larger scientific community. For this assignment you are writing a literature review for Dr. Parsons, your scientific peer.

#### Collaboration

Science is a collaborative process. You may have noticed that very rarely do you see a research article with one author. Often articles have multiple co-authors, who have contributed to the project in different ways and to different extents. You will have the opportunity to collaborate with group members on the literature review. However, remember you will individually each write a policy memo.

#### Description of Literature Review

#### LITERATURE REVIEW

Your literature review will be 3-4 pages (1500-2000 words), and will include a comprehensive background of your policy memo topic. You will use at least 7 primary sources **AND** one source (primary or secondary) directly related to your target audience for your policy memo. Your literature review will help inform the background section of your policy memo. In fact, you may be able to incorporate sections from your literature review directly into your memo. However, you will need to carefully consider your audience. The audiences for a literature review and a policy memo are very different. You and your group can work together on the literature review.

## THE PARTS OF YOUR LITERATURE REVIEW

This [article](#) provides some good advice on how to structure your literature review.

### Title

Make sure your title is descriptive and specific. It may help to think of your independent and/or dependent variables. From the title the reader should be able to know exactly what your literature review will be about.

### Abstract

Include an abstract for your literature review. Your abstract **cannot exceed 250 words**. Read the abstract of review papers on your topic for guidance. Typically an abstract for a literature review or review article have the following elements: **1-2 sentences of background telling us about the issue and why it is important; 1 sentence stating your objectives for the review (this could be the same statement of objectives you have in your introduction); 1-2 sentences about your general findings or general trends you found while doing the literature review (key points); and 1 sentence highlighting the "gap in research" and stressing why it is important that it be addressed (in this case the "gap" would be what Duke is not doing to address the issue and an explanation of why it is important and urgent that Duke address the issue).**

### Introduction

In the introduction you are going to highlight some general background about your study organism or topic and emphasize overarching trends (without detail) in the literature as it relates to your topic. **Include 1-2 sentences giving us general background on your topic. Include 1-2 sentences stressing why this issue is important and urgent. At the end of the introduction include 1 sentence about your objectives for the literature review.** (1-2 paragraphs)

For example, let's say you are studying Lyme disease transmission and want to explore how Duke can minimize transmission. Your first few sentences of your literature review might talk generally about ticks and Lyme disease and why Lyme disease is bad. You may add a sentence about Lyme disease rates in NC and how they have been growing over recent years to emphasize the importance and urgency of the issue. You then may end with a sentence stating your objective for the review. You may say, "Our objective with this review is to highlight the harms of Lyme disease, discuss why Duke students are at risk, and explore what Duke is doing (and not doing) to address Lyme disease on campus."

### Body

The body of your literature review is where you **go into detail about the studies done related to your topic. Include subheadings that organize your body paragraphs according to how you organized your statement of objectives. Have at least one paragraph (you will likely need more) under each subheading that addresses studies or information related to each of your objectives.** You are going to synthesize information from different sources to highlight the general themes of your objectives. (3-5 paragraphs)

Let's use the example above again (Lyme disease transmission). You may have a subsection titled, "The Harmful Effects of Lyme Disease," where you discuss all the research highlighting the harmful

effects of Lyme disease. You may then have another subsection titled, “Lyme Disease Risk Among Duke Students,” that highlights all the literature about Lyme disease risk to different groups of individuals. Here you may highlight how high risk is among different age groups, different life style types, etc. This may all point to why Duke students are particularly at risk of catching Lyme disease in Duke Forest. Then you may have a subsection for “What Duke is Doing to Address Lyme Disease on Campus,” where you read through the Duke Forest resources and their Strategic Plan, to see if Duke already has plans to address Lyme disease. You will highlight what they are currently doing, as well as what they are not doing.

## Conclusion

The conclusion is a short recap of the objective and themes in the review and emphasizes where the gaps are that need to be addressed (in this case, with relation to Duke, i.e. what Duke is not doing to do address the issue). **Include 1-2 sentences emphasizing the importance and urgency of the issue again. Include your statement of objectives again (1 sentence). In 1-2 sentences recap your main points or major themes you found in the literature. In 1-2 sentences highlight the "gap" that needs to be addressed (e.g. in this case the "gap" is what Duke is NOT doing to address the issue). In your last sentence, give a conclusion that restates the urgency and importance of the issue.** It may help you to remember this literature review is setting you up to make a good argument for your policy memo. (1-2 paragraphs)

Let’s use the same example about Lyme disease transmission. In the first sentence you may point again to the importance of this issue. You may say “Lyme disease affects x number of North Carolinians every year.” In the second sentence you may recap your objective. “Our objective for this review was...” In the next couple of sentences you may summarize your main points. You may say “In our review of the literature, we found that Lyme disease is on the rise in NC and Duke students are particularly at risk for contracting the disease.” You will then have a sentence highlighting what is being done or not on campus to address the issue. You may say “Although Duke students are at a high risk of contracting Lyme disease, currently Duke Forest does not address mitigation of insect-vectored disease risk in its Strategic Plan.” Your last sentence will then end with a statement of urgency. “We, therefore, conclude that Duke Forest needs to address this issue to minimize risk and ensure quality of life for all Duke students.”

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## OTHER DETAILS

### Sources

You must have a minimum of 7 scientific primary sources (peer-reviewed scientific journals) for your literature review **AND** one source (primary or secondary) directly related to your target audience for your policy memo. Sources can be the same for the literature review and memo. You will likely find that you need more than 7 sources to write a comprehensive review. I encourage you to use as many sources as you need to make a convincing case that your identified question is important (not to be less than 7). I want at least one source (primary or secondary) that is directly related to your target audience for your policy memo. For example, if your target audience is Duke Campus Farm, I want you to have at least one source related to the Duke Campus Farm, such as their 2019 annual report.

