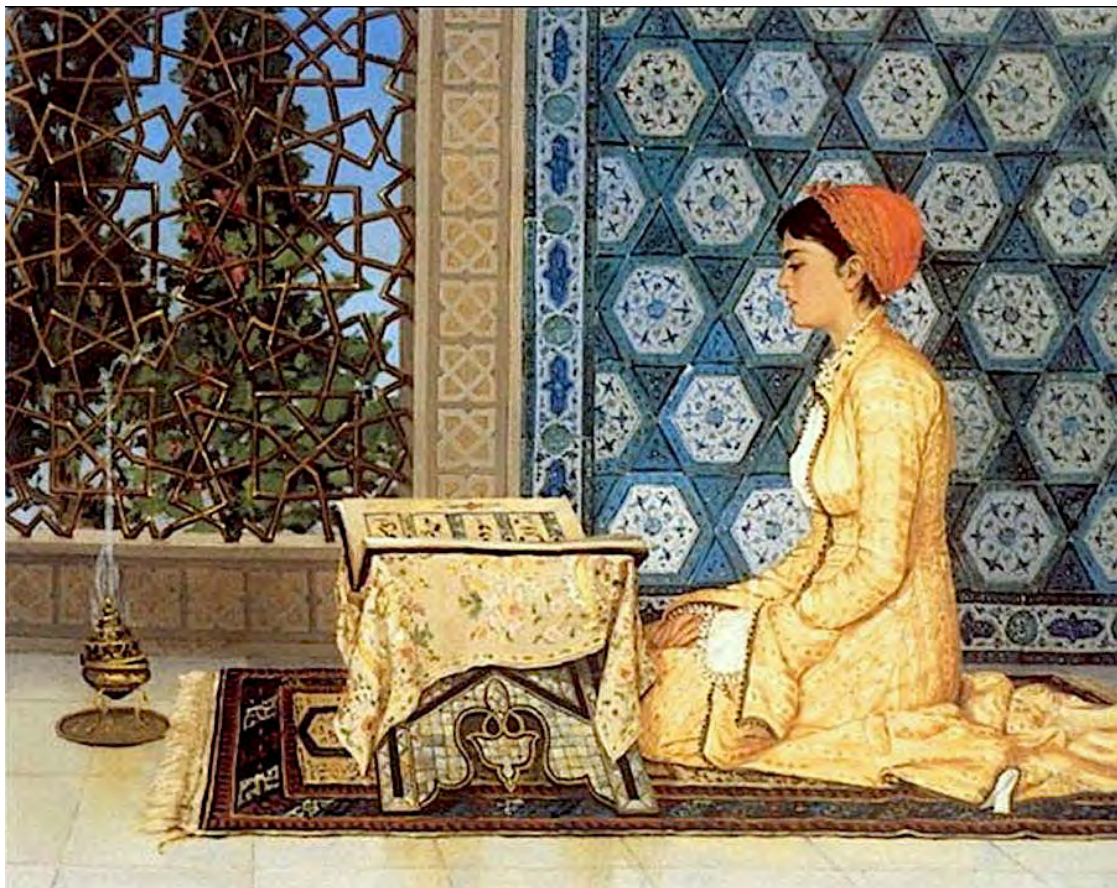# ORGANIZING AND STRUCTURING THE LITERATURE REVIEW

Lubna Al-Qortobia, The Great Scribe of the Madīnat al-Zahrā Library, Andalusia.

A HANDY GUIDE BY

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ORGANIZING + STRUCTURING
THE LITERATURE REVIEW

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Reviewing existing literature is one of the most important procedures that we undertake in order to carve out a research trajectory. It includes many steps, from identifying relevant texts and accounting for their arguments, methods, and findings, to developing analytic criteria, synthesizing multiple sources, discerning broad integrative categories, and teasing out gaps in the scholarship. It also includes finding your optimal work space, auditioning various citation software, bouncing ideas off of your professors and peers, making endless pots of coffee, and playing around with outlines until you figure out the best one. Above all, it involves reading. Lots and lots and lots of reading.

This process of reviewing extant scholarship eventually results in the production of a document that we call the "literature review." The literature review conveys, in an orderly, succinct, and methodical way, the findings of your engagement with authors and texts. Rather than a simple report or inventory, the literature review is an argument about the state of the art of scholarship surrounding a field or area of inquiry. In the following pages, we will consider ways to structure and organize your literature review to best effect. While the goal is to provide a 'good place to start,' this is by no means an exhaustive document. There are many excellent books, articles, and online resources that delve into the literature review in great detail.

Purpose of the Literature Review

Everyone who creates does so by building on the work of those who came before. Novelists draw on other novelists. Painters quote motifs and subjects from fellow artists. Architects revive styles or work with tried and true methods established long ago. DJs create sonic collages through sampling. Scholars are no different, except that we usually insist on citation when borrowing. For us, knowledge production is a cumulative process grounded in mutual acknowledgment. As we encounter the views and ideas of other people, we leave wayfinding devices behind us, like a series of signposts that others can follow back to our influences. We call these signposts "citations," and they connect us to broader intellectual genealogies.

The literature review, then, is a story about how we fit into those broader intellectual genealogies. The main purpose of the literature review is to render explicit our use of other people's ideas. It is one of the most basic and fundamental steps in the research process, where the researcher characterizes existing scholarship on a topic, develops a position with respect to that scholarship, and carves out a space to contribute new knowledge. In reviewing extant literature we acknowledge the work of others, then add our own work to that literature, which in turn becomes part of the intellectual genealogy that others review for their research. Ultimately, writing a literature review is an act of translation, where we engage dense, interconnected networks of scholarship and organize these into systematic accounts.

Literature reviews vary in scope and complexity, from brief paragraphs included in a journal article, to a lengthy section in the introduction to a thesis or dissertation, to a comprehensive paper or article that stands on its own. Whatever their length, they all have one characteristic in common: they are synthetic statements that provide a point of departure. In other words, they do not present scholarly works as a playlist or annotated bibliography; instead, they convey an argument about the state of existing scholarship, citing individual works as examples. Moreover, every literature review has the same goal: to build the intellectual scaffolding for research. We all stand on ground prepared by others, and the literature review is where we acknowledge this, where we work out what that ground looks like and how we will traverse it.

To build this intellectual scaffolding, most literature reviews bring together multiple strands of research. The reviewer establishes a topic, constructs a framework, identifies several key areas of scholarship, and brings these into conversation relative to the topic. Each of the areas of scholarship will be far broader than the topic itself; it is the overlap between them, and where the author positions herself within that overlap, that establishes the author's point of departure for future research. We can represent this process schematically with a Venn diagram, mindful that the process itself is complex, recursive, ongoing, and multidimensional:
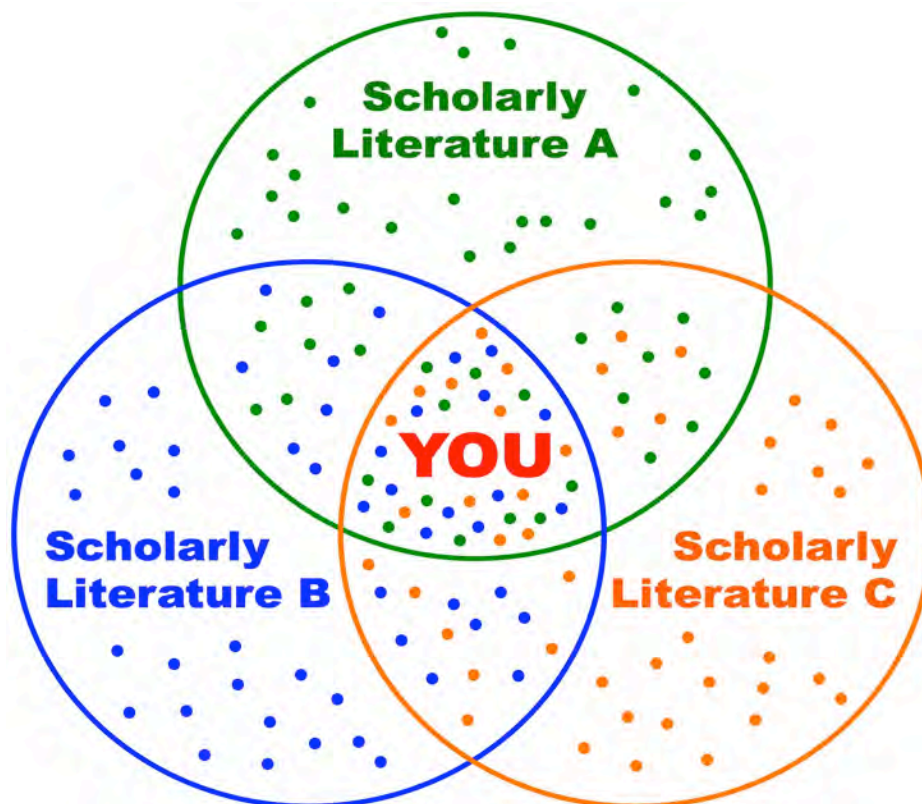
To add texture to this diagram, we can use the example of urban spatial production in informal settlements in Mexico City. Scholarly Literature A might consist of works on the political economy of urban development in Latin America, Literature B on spatial production, and Literature C on informality in land and housing. Of course, there need not be only three areas of literature, there might be four, five, or more. This merely provides a simplified example of how the literature review brings distinct arenas of scholarship into conversation around your problem space or topic.

Substantively, then, the literature review provides an opportunity for a researcher to integrate a variety of scholarly texts related to a particular line of inquiry, resulting in a more expansive fund of knowledge on which to draw. This can generate a richer understanding of the development and major debates of a field, a stronger basis for discernment between relevant and extraneous texts, a revised view or new interpretation of extant scholarship, and a clear position from which to stake out a research approach. Without the comprehensive literature review, we can never be sure if what we are saying is truly significant.

To summarize:

THE LITERATURE REVIEW ALLOWS US TO:

1. **Engage in extended conversation with a research community**

2. **Characterize the state of the art of existing scholarship**

3. **Establish your point of departure relative to existing scholarship**

4. **Bring focus to a research question or problem**

5. **Deepen familiarity with key terms, ideas, concepts in a field**

6. **Contextualize the history, geography, scale, and actors of topic**

7. **Develop new lines of inquiry**

8. **Determine the need for and significance of your topic**

9. **Gain facility with varied methodological approaches**

10. **Make recommendations for further research**

Forms of Organization

There are many approaches to organizing a comprehensive literature review, with overlaps and differences between disciplines. In the natural sciences, for example, it is a common practice to conduct literature reviews through the assembly of an immense database of articles to which the reviewer applies sequent criteria for narrowing, quantifying significance, and summarizing outputs. Such an approach is less common in the social sciences, and seldom used in the humanities. Social researchers might use citation management and qualitative analysis software to facilitate their work, but in the end there is a strong reliance on the judgment of the reviewer to parse and discern the significance of texts. Regardless, there are four major approaches to the literature review that are common in the social sciences and humanities.

Historical

The historical approach is useful for tracing the development of a field or area of inquiry over time. It allows the reviewer to foreground the genealogy of knowledge relevant to their project. A project on urban poverty in the U.S. might examine how scholars framed and studied the topic in different periods where it emerged onto the national agenda, e.g.-- the 1930s, the 1960s, and the 1980s. This kind of review is typically organized into major stages in the formation and development of a field, with the various texts coded and divided into the stages to which they belong. The reviewer will account for the main accomplishments and shortcomings of urban poverty research in each period.

Theoretical / Conceptual

For some projects, the key objective of a literature review will be to account for the major theories and concepts that a scholar will deploy in a line of inquiry. Using the study of urban poverty again as an example, a scholar might build accounts of the topic from the perspectives of neoclassical economics, Marxism, feminism, and racial capitalism. Each of these would form a section of the literature review. Likewise, a project examining informal housing in Mexico might incorporate theories of state form and governance, urban spatial production, and land tenure and development. In each case, the goal is to synthesize theories so that reviewers can build their own scaffolding for research.

Thematic

Perhaps one of the most common ways to organize a literature review is thematically. In this approach, the reviewer organizes material into the most relevant subtopics or clusters. This requires breaking the project down into its most high-level constituent parts. These constituent parts might be keyed to research subquestions, or they might naturally present themselves based on the scope and terms of the topic. A project on farmer protests in India, for example, might draw on literature from studies of Indian national agricultural policy, rural and village traditions of protest and resistance, and the political economy of Indian food production and consumption. A literature review for a project on heat-related injury in Phoenix might be broken down into sections on the climate drivers of increasing average temperatures, the impact of tree canopy and green space, the architecture of housing, and urban morphology.

Methodological

The fourth major approach to the literature review is a focus on methodology. A researcher might select this approach if the goal is to learn from methods that have been used by other scholars working along similar lines, whether the goal is to reproduce, adapt, or reject those methods. The scholar working on informal housing in Mexico might be interested to know how researchers have deployed methods alternately from anthropology (ethnography, field studies), economics and political science (econometric modeling, large data sets), sociology (surveys, interviews), and architecture (drawing, typology, plan analysis). This is particularly useful if the researcher plans to engage mixed methods in their study. The methodological approach is less common as a base format for the literature review, but most literature reviews do account for methodologies along the way.

Stages and strategies

The stages of a literature review are fairly standard, but it is important to bear in mind that they are not linear. Each stage involves continual iteration between thinking, searching, reading, note taking, reading some more, and re-thinking. Moreover, the stages are by no means discrete; the reviewer will move back and forth developing, articulating, and revising between the stages as new information becomes available. And of course, each of the stages identified below includes many steps and procedures. They key stages can be summarized thusly:

Topic and Scope of Review

While an integral part of the literature review, topic conceptualization is an ongoing process, beginning well before the writing of the review and continuing afterward through refinement and adjustment. The key step in preparing for the review process itself, then, is the definition of scope. This involves establishing parameters to limit your literature search according to your topic and its various components. Here the "who, what, when, where" questions become indispensable. Who are the key institutional actors and networks? What social groups are at the center of your research? What particular aspects of a given phenomenon will you focus on? When does it all take place; does the temporal framework of the study stretch over decades or centuries, or is it focused on recent developments? Where is all of this taking place; that is, how would you characterize the scalar and geographic boundaries of your inquiry?

Conducting the Literature Search

The most important stage of the literature review is building your pool of sources. This tends to be an ongoing rather than discrete process, involving various search strategies. The best places to begin are with advisors and peers who will recommend texts, and with a thorough round of searches in the library consortium database and UMI dissertation archive. These will provide most of the book-length studies on which you will draw. For peer reviewed journal articles, which will make up the bulk of your literature, you can run searches in multiple databases such as EBSCO, ProQuest, and Google Scholar. The relevance of the databases will depend on your field: natural scientists will be more likely to use Scopus, PubMed, and ScienceDirect, for example, and designers will always consult the Avery Index. In all cases, it is important to conduct repeated searches using different Boolean strings to generate the initial source base.

Once you have your base, you can then select which articles to scan for highest relevance. As noted in the table below, your base might consist of hundreds of books, dissertations, journal articles, conference proceedings, and reports. You should establish a set of criteria for pairing down the sources that you will scrutinize more closely. This entails scanning each one for its relevance to your topic, importance in the field, the methods and evidence used, and conclusions. Once you have culled through this list of selected works, you will finally have your review list. This is the group of sources that you will read closely and carefully in order to synthesize them into your review. A search table might look something like this:

Database / source		Identified	Selected	Reviewed
NYU Bobst / Consortium (books)		54	28	17
UMI Dissertation Archive		14	8	3
EBSCO Host		22	17	7
ProQuest		18	14	4
Google Scholar		42	24	13
Avery Index		12	6	5
JSTOR		15	7	0
SAGE Journals Online		29	21	10
Rec's from advisors and peers		25	17	9
Total		**231**	**142**	**68**

While it is important to remain open to new sources, it is also important to know when to stop and focus on what you have gathered. There is no magic number for sources to include in your literature review; this will depend on the topic and its constituent parts, and how fine you tune your selection criteria. However, you cannot review everything ever written on a problem space or topic, so you have to recognize where to draw the line. This usually involves reaching saturation, when additional sources would be unlikely to add substantively to your review. As Kenny Rogers famously sang: "You got to know when to hold 'em, know when to fold 'em, know when to walk away, know when to run."

Analyzing scholarly works

As you build your bibliography, you can begin the long process of analyzing and synthesizing the literature. There is no single rubric for analyzing scholarly books, articles, and other artifacts. Analytic procedures differ from one discipline and field to another. However, there are several evaluative considerations that are common to most, and that can be applied to any text under scrutiny for the literature review.

Provenance -- Here we are concerned with the trustworthiness of the source. Where does it come from? What is the author's experience in this area of research? Is the work peer reviewed, and is the publication venue well known? Has it been widely cited?

Data -- Is this an empirical study? If so, what are these sources? How and from where did the author obtain the data? A text need not be empirical to be included in the literature review, but knowing the difference is a crucial part of discernment.

Methodology -- What methods did the author use to identify, gather, and analyze the data? Were they novel or were they tried and true? Did they appropriately address the research question? Were the results effectively interpreted and reported?

Integrity -- Does the author acknowledge normative assumptions and rival explanations? Is contrary data considered, or is crucial information ignored? If the work lacks integrity, what could the author have done to make it more trustworthy?

Validity -- In discerning the validity of the piece, it is important to consider whether the premises themselves are valid, if the evidence recruited is appropriate, and if the conclusions reached reflect the evidence presented.

Persuasiveness -- Is the argument fully, partially, or not at all convincing? What might the author have done to make the work more persuasive? How can you take what is good from the piece while avoiding the mistakes that the author made?

Contribution -- Finally, the reviewer must judge whether the piece contributes something important to an understanding of the topic at hand. What is the contribution, and where does it fit into the broader literature under consideration.

Establishing the Research Agenda

The major outcome of the literature review is the identification of gaps in scholarship relative to your problem space or topic. We will discuss this further in the next section. However, suffice it to say that these gaps provide the opening for you to establish your research agenda going forward. It is through your work that you will begin to close the gaps that you have identified. This process might shift the focus of your topic; very often, a thorough immersion in the extant literature will lead you to refine your problem space or topic as new evidence and information comes to light through your labors.

Elements of the Literature Review

Again, there is no single set of rules about what elements comprise a literature review. This will differ not only among disciplines and fields, but also based on the purpose of the literature review itself. Short literature reviews that accompany journal articles are usually only one or two paragraphs long, and do not include multiple sections. Literature reviews for a dissertation are longer and more involved than those written for journal articles, and usually include sections. For the present, we are concerned with the *comprehensive literature review*, which is broader than the dissertation literature review.

The purpose of the comprehensive literature review is to characterize the state of the art of scholarship in a problem space, and to demonstrate facility with the theories, debates, methods, and findings at the intersection of fields relevant to your work. In the Ph.D. in Public + Urban Policy, the comprehensive literature review is the document that students include in their portfolio as part of advancement to candidacy. This section describes the key elements that most commonly comprise the literature review, which can be summarized in the following diagram:
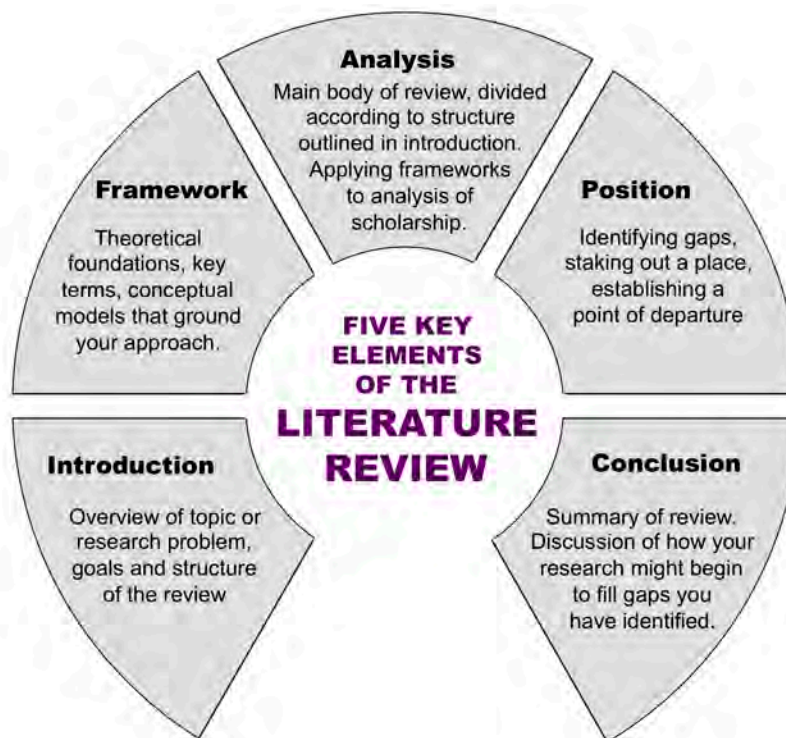
Introduction

In the introduction, you should provide a clear and succinct overview of the literature review. This involves stating the research question or problem space that drives the selection and analysis of scholarship. You should do this in the very first paragraph. As a rule of thumb, the reader should not leave the first page without knowing what your literature review is about. Once that is established, you can then explain the organization and component parts of the literature review as a kind of 'road map' of what is to come. Here you should provide a high-level account of the scope and limits of the review in order to convey the focus as strongly as possible. Finally, after diving into the various areas of scholarship you have identified, you can come back to revise the introduction to include an argument about the state of the art of the literature on your subject.

Framework

If readers are to make sense of your selection and analysis of literature for review, then they need to understand the frameworks that you are applying. Here you will discuss the key terms of your project, and the theoretical and conceptual models through which you will analyze them. You cannot write a literature review about land, for example, without first noting how scholars have theorized the concept of land, and then discussing how you will deploy the term in your work. To take another example, a literature review on infrastructure and urban regional development in Kenya would need to discuss each term within the theoretical and conceptual contexts relevant for your study. You might frame infrastructure at the intersection of political economy and actor-network theory, explore the idea of the 'urbanizing region' in terms of scalar theory and political ecology, and development within a postcolonial and Marxist human geography approach. In doing so, you should consider rival explanatory frameworks such as neoclassical economics, technological determinism, and older theories of 'underdevelopment,' either incorporating parts of them or rejecting them outright. The goal is to let the reader know how you are theorizing and conceptualizing your problem space or topic, and therefore how you are justifying the selection of scholarship for review.

Analysis

The analysis comprises the main body of the literature review. In this part you divide the works under review into sections depending on the approach taken (i.e., historical, theoretical, thematic, methodological). A detailed outline is key to a successful analytic section, as it will allow you to exercise control over the narrative, rather than it expand without limits. In other words, the narrative should be subordinated to your organizational framework, not the other way around.

This also helps to avoid the dreaded 'play-by-play' approach, where a reviewer will simply 'list' articles one after the other in a paragraph, as if they are composing an annotated bibliography: "This author says a, that author says b, that author says c" and so on (see illustration at right). The point of the literature review is to group works of scholarship into categories so that you can characterize the knowledge base of your topic and subtopics. You should consider strands of research that support your topic, those that challenge it, and those that offer alternatives. If you do highlight the work of specific authors, it should only be to foreground those whose works are most important to your own and that have made the greatest contribution to the understanding and development of an area of research. Overreliance on any one source or small cluster of sources can lead to problems down the road; you should analyze a wide range of sources in order to build a more solid position.

Position

In this section you stake out a position relative to the literature you have reviewed. This is your opportunity to craft a "point of departure" for your research, and to figure out how you will contribute to the existing scholarship on a problem or topic. After all, the goal of a literature review is not only to know what is out there, but also to train yourself to see what is NOT there, and to recognize how you can contribute. Typically, this involves the identification of lacunae-- gaps and deficits in the literature that you can fill with your research. Such gaps might exist in terms of content knowledge, theoretical frameworks, or even outdated studies (e.g., scholarship on the internet from the 1990s, or, nothing substantive has been written about x since 2005). You are looking for areas that have not been explored, or that have only been minimally explored. Moreover, once you have tentatively identified a gap, it is imperative that you do due diligence and return to your literature search in order to be sure you have not missed anything. Were your search parameters too narrow? Did you check allied and adjacent disciplines? If your research setting is located in a country using a language other than English, are there key scholarly works in that language, and if so how will your research account for this?

Conclusion

In the final section of the literature review, you will provide a summary of the major themes, account for the merits and shortcomings of the theoretical and conceptual framework, note key findings, and revisit the gaps that you have identified in the scholarship. However, a substantive conclusion will go further by sketching out a potential research agenda or direction. Given the gaps you have identified, how might you go about filling them? What research questions might guide your future work? What methodological approaches seem most fitting? In this sense, the conclusion anticipates the dissertation proposal.

Helpful Tips for the Literature Review

Overall Process

- Maintain your voice and sense of who you are as a scholar. The literature review can be an uncertain and at times destabilizing process. Think of it as a journey, where the destination only becomes clearer the more you move forward. You have to be true to the scholarship as it exists, but you can still retain your values and integrity, and write in your own voice.

- Stay in communion with peers. The literature review and dissertation process can be lonely and isolating. Sometimes it can be really generative to sit alone and think. But you should also remain in contact with your advisors and peers. Form reading and writing groups. Meet periodically to exchange ideas, sources, techniques, software tips, and so on.

- Figure out your best stress management techniques. It is hard, and sometimes not possible, to avoid stress while conducting and writing the literature review--or indeed any lengthy piece of work. Find your 'best place' to write: for some, a quiet, solitary place is crucial; others do their best work with noise and people around them. Take breaks, meditate, walk around, stretch.

Searching and Reviewing

- Develop a consistent search strategy. Identify the most relevant databases for your discipline and field; if in doubt, consult with your advisor and the subject librarian. Identify a few of the most important scholarly works and check their bibliographies for further sources. Published literature reviews can be especially helpful.

- Use citation management software. The advent of citation software has made the process much easier. There are many good packages out there, including RefWorks, EndNote, BibTeX, and Zotero. Most operate across platforms, although if you are a Linux nerd then you will need to check for compatibility.

- Exercise discernment. Not everything piece of literature belongs in the review. It is very important that you use sound judgment to decide what to include and what to exclude. Rather than a statement or claim with ten cited sources, just cite the 3-5 most relevant.

- Exercise critical judgment in reading scholarly works; do not accept arguments at face value, make sure that they are grounded in sufficient evidence and methods. This requires paying close attention to the research design of the various texts you encounter.

- Avoid "cherry picking" sources. Include scholarly works that challenge your views and arguments, or that provide rival explanations, rather than only including work that validate your own assumptions.

- Know when to stop. It is important to know at what point you should draw a line under the literature review. As noted before, this usually comes at a point of saturation. Any works that you do not use can be integrated into your dissertation chapters; not everything can or needs to be included in the literature review.

Writing, General

- Focus on what the literature reveals. To maintain the highest integrity, your review should characterize the current state of scholarship on a topic with the greatest fidelity possible. It is not a venue for you to venture your views and opinions, or to 'cherry pick' or bend the literature to suit your needs. You are looking for gaps, and you can only find them if you have accurately depicted the successes and shortcomings of extant scholarship.

- Work with an outline. Never approach writing something as complex as a literature review without a detailed outline. In many ways, the creation of the outline is the major step in the process; from there you fill it in with your writing. You can key all of your sources to where they fit in the outline. Note that sources may show up in more than one place in your outline.

- Ground your claims in evidence. If you make a claim or statement about a topic, issue, or phenomenon, provide a citation. You can include multiple sources to strengthen the citation where warranted. Claims lacking cited evidence usually stand out, and are highly problematic for a literature review.

- Diversify your sources throughout. Avoid writing long paragraphs that only cite one author. Never leave your reader wondering "who said that?" or "did all of that really come from just one author? Haven't others written about these issues?"

- Decide on your citation format. Disciplines and fields differ widely on this point, so consult with your advisors. Whether you use notes or in-line citations, whether you format them in APA, Chicago, Harvard, or one of the hundreds of others, the key is to be consistent.

- Revise, revise, revise, and then revise some more!

Writing, Specific

- Write coherent paragraphs. A coherent paragraph begins with a strong topic sentence that establishes the main idea, with each subsequent sentence supporting the main idea. Avoid overly long paragraphs; if you see your paragraph growing longer than a page, that is usually a good indication that it can be broken up.

- Be very clear to indicate whether a statement reflects your view or that of the author(s) whom you are citing. Very often a lack of clarity around this point leads to problems and confusion, and should be avoided.

- Use quotes sparingly. For the most part, you should avoid long quotes. Anything that can be quoted at length can also be paraphrased. Short quotes are fine, and can add texture to the review if used sparingly.

- Avoid play-by-play. Instead of going over every piece of work separately, group them together as evidence for your ideas, statements, and claims. Remember, you are characterizing the literature, which involves making claims and statements about it and backing those up with evidence from your sources.

- Use active verbs as much as possible. Some disciplines prefer passive voice construction so as to abstract the author from the narrative. This is fine, but passive voice constructions are often awkward or cumbersome, so avoid it when you can. Instead of writing "In a study by Smith (2019), it was found that…" say "Smith (2019) found that…"

- Clarify terms. Most disciplines have their own scholarly argot. Make sure that all terms are defined so that you do not exclude readers who might be unfamiliar with the lingo in your field. Also be sure only to use acronyms after you have introduced their full name the first time you use them. If your paper uses multiple acronyms, consider including a glossary.

- Avoid vague words, colloquialisms, and generalizations. Too often, scholars make use of terms that add little to the understanding of a topic or that obscure their meaning. Such words and phrases include, but are not limited to: holistic; organic (unless referring to carbon based life); progress; happy medium; throughout history/time; some, many, a lot, or other undefined quantities.