
Introduction

Doing and Producing a Literature Review

An Overview

GETTING STARTED

Chi ha fretta vada piano.

In order to go fast, you must go slow.

KEY VOCABULARY

- **Complex Literature Review**—A review that extends the work of the simple review to identify and define an unanswered question requiring new primary research.
- **Literature Review**—A written document that develops a case to establish a thesis. This case is based on a comprehensive understanding of the current knowledge of the topic. A literature review synthesizes current knowledge pertaining to the research question. This synthesis is the foundation that, through the use of logical argumentation, allows the researcher to build a convincing thesis case.
- **Reflective Oversight**—A contemplative thought process that critically regulates, assesses, and corrects the personal knowledge, skills, and tasks used to conduct the literature review.

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- **Simple Literature Review**—A written document that critically reviews the relevant literature on a research topic, presenting a logical case that establishes a thesis delineating what is currently known about the subject.
- **Thesis Statement**—A declarative sentence that expresses a conclusion based on a case developed using existing knowledge, sound evidence, and reasoned argument.
- **Topic**—A research area refined by interest, an academic discipline, and an understanding of relevant key works and core concepts.

So you need to produce a literature review. Perhaps this is a class assignment, a thesis for a master's degree, or the foundation research for a doctoral dissertation. Whether approaching this task for the first time or as an experienced researcher, we all do it for the same reasons: to increase our skills and knowledge, to learn, to share, and also to have the satisfaction of completing a successful project. To succeed, you will want to avoid the problem mentioned by a colleague of the authors: "Some people do not have the patience and foresight to do it right the first time, but have infinite patience and capacity to do it over, and over, and over again."

The good news is that you do not need to reinvent the literature review process. Trial and error isn't the only approach. There are known procedures and skills to make this task easier and more efficient. This book provides a road map to guide you in producing a literature review that will contribute to your field. Conscientiously using this book will help you arrive successfully at your destination. Each chapter offers tips and tools from many sources, including ones from the authors' experience. Using the six-step process offered here will make it possible to plan and complete a successful literature review without wasting time and effort.

CHAPTER OVERVIEW

This introductory chapter presents the key concepts to be mastered to produce a quality literature review. They are procedure, disposition, and reflection. The chapter begins by defining the purpose and procedure for doing a literature review. Simply knowing correct procedure will not guarantee success, however. How you are disposed to engage in this endeavor and to self-evaluate the quality and accuracy of the work will weigh heavily on your success. This chapter presents the personal dispositions necessary to complete a project of this scope and the reflection process used to manage and evaluate the quality and accuracy of the work.

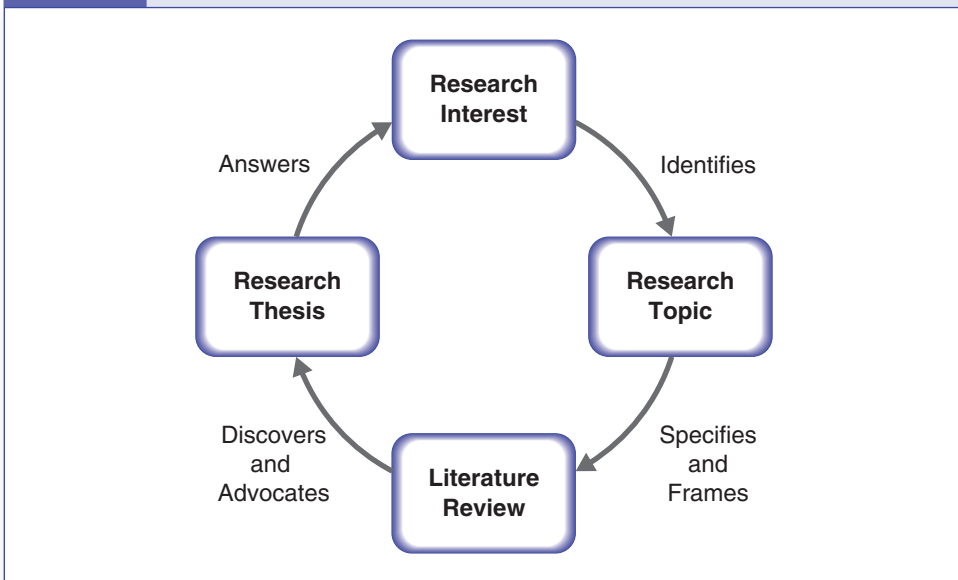
THE PURPOSE OF A LITERATURE REVIEW

As you begin, ask yourself, “Am I trying to present a position, *a thesis*, that defines the current state of knowledge about a topic, or am I using the current knowledge about a topic as the basis for arguing a thesis that defines a research problem for further study?”

Literature reviews have different purposes depending on the nature of the inquiry. If the purpose of the inquiry is to argue a position about the current state of knowledge on a topic, then you are doing a **simple literature review**. If the purpose of the inquiry is to review the literature to uncover a research problem for further study, then you are doing a **complex literature review**.

The simple literature review (Figure I.1) documents, analyzes, and draws conclusions about what is known about a particular topic. Its purpose is to produce a position on the state of that knowledge; this is the **thesis statement**.

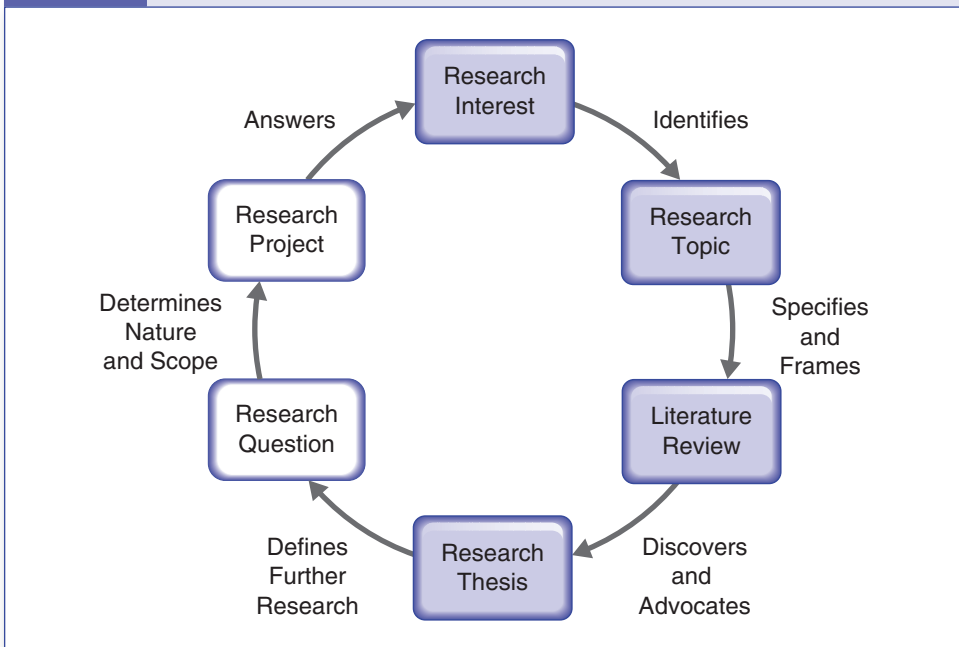
Figure I.1 The Simple Literature Review



The simple literature review begins by selecting and identifying a research interest for inquiry. This is the preliminary study question. As you proceed, you will narrow and refine this interest into a research topic, based on an initial exploration of the literature. The research topic must be a clear and concise statement that defines and describes what will be researched. Its definition identifies and frames the scope of the literature review. The literature review canvasses the literature, documenting and

cataloging pertinent knowledge. From this information, it presents an evidence-based analysis of the present understanding of the topic. The product of the simple literature review is the development of a case that argues what is known about the topic. The case's conclusion is a thesis statement that answers the question posed by the research interest. Many class research assignments and master's degree thesis projects require a simple literature review.

Figure I.2 The Complex Literature Review



The complex literature review (Figure I.2) has a different purpose and additional demands. It not only presents the current state of knowledge about a topic (the darkened four boxes of Figure I.2) but must also argue how this knowledge reasonably leads to a problem or to a question requiring original research.

In the complex literature review, the researcher first addresses the current state of knowledge about the study question. Then, based on these findings, the researcher proposes a thesis defining an issue for further study. This thesis becomes the problem or question of a new research study. The conclusions drawn not only define the research question but also frame the appropriate methods to be used for conducting the research.

Advanced master's theses and doctoral dissertations use the complex literature review as the basis for providing the background statements and the argument for the research study. The complex literature review is used

to write Chapter 1 (Introduction) and Chapter 2 (Review of the Literature) of the standard five-chapter dissertation document. Not having a quality literature review in hand when developing these chapters will surely result in numerous unsuccessful attempts. “You can’t write about what you don’t know,” as the saying goes. The complex literature review is the starting point for research projects such as dissertations.

While simple reviews and complex reviews seek different outcomes, the manner in which they uncover knowledge and produce a thesis is similar.

THE LITERATURE REVIEW DEFINED

A **literature review** is a written argument that supports a thesis position by building a case from credible evidence obtained from previous research. It provides the context and the background about the current knowledge of the topic and lays out a logical case to defend the conclusions it draws. Here is our definition of a literature review:

A literature review is a written document that presents a logically argued case founded on a comprehensive understanding of the current state of knowledge about a topic of study. This case establishes a convincing thesis to answer the study’s question.

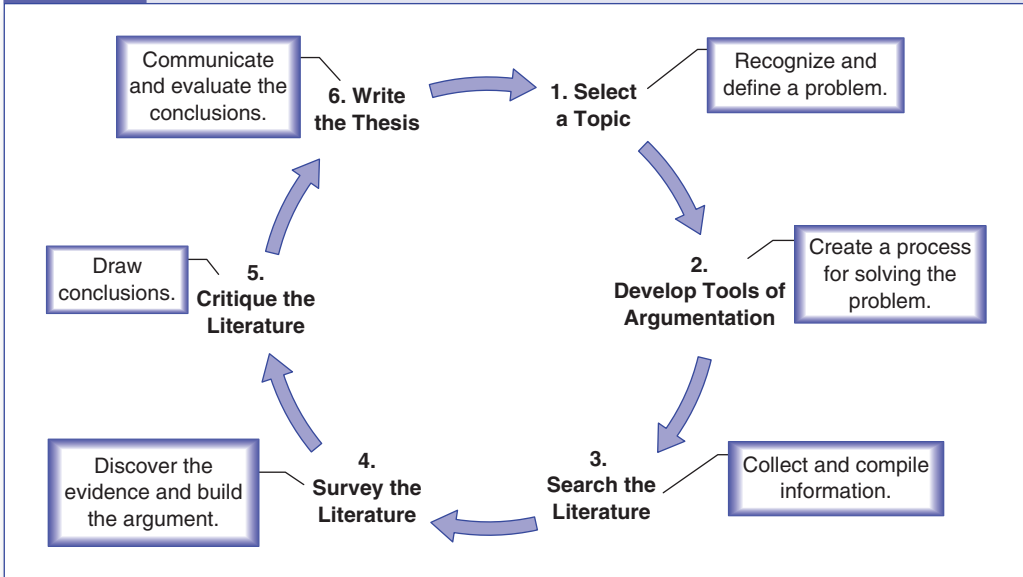
THE LITERATURE REVIEW PROCESS

A literature review is an organized way to research a chosen topic. Let’s take the mystery out of this process. The simple fact is that doing a literature review is an exercise in applied critical thinking.

Critically thinking about an issue is a deliberate process. First, the subject of the inquiry must be recognized. It must be clearly defined and described. Once a researcher has a clear definition of the subject in question, information can now be collected about the topic. These **data** are cataloged and organized in such a fashion that some sense can be made of them. The data can then be interpreted and analyzed to build the evidence or reasons to form conclusions. The conclusions formed present the logical case for answering the question first inquired about. Finally, the argument is examined; the researcher looks for holes in the reasoning and weighs the conclusions drawn against competing alternatives. Once this process is completed, the answer can be shared with others.

Figure I.3 shows the steps for conducting a literature review, as matched to the applied critical-thinking process.

As is critical thinking, doing a literature review is a developmental process in which each step leads to the next (Figure I.3). Following is a brief explanation of these six steps.

Figure I.3 The Literature Review Is a Critical-Thinking Process

Step 1. Select a Topic—*Recognize and Define the Problem*

A successful research topic is usually the offspring of an interest in a practical problem. The interest statement must be reshaped appropriately, converting its generic wording to specific academic language. The topic statement must be well defined to allow the researcher to successfully identify the appropriate literature in the pertinent academic discipline. Refining the terms used, accurately framing the focus of the interest, and selecting the appropriate academic knowledge base are the tasks to be completed to define a research topic.

Step 1. Select the Topic is also the start of the writing process. Keeping a written journal of your progress begins here and is essential to comprehending and building knowledge. A journal helps to clarify ideas and process learning. Writing helps clarify thoughts and ideas. The journal is an ideal place to establish an internal dialogue where reflection on your learning can be “wrestled with” and understood. Journals also provide an excellent place for planning and reviewing work.

Step 2. Develop the Tools for Argument—*Create a Process for Solving the Problem*

Since a literature review must present a logically argued case founded on a comprehensive understanding of the current state of knowledge, then the rules and tools for building an informal argument must be employed. A credible case is not simply reporting about a collection of information or presenting your opinion about the topic. A credible case produces

conclusions resulting from a logical presentation of supporting evidence. The tools for evidence building, argument development, and logical reasoning are the building blocks used to make a credible case.

A literature review uses two types of argument to build its case. The first argument builds the findings of the case. The second argument forms the case's conclusions. The result is a well-argued thesis. Both arguments are based on sound reasoning and logical construction. The knowledge and the application of the processes and tools of argumentation are the means for constructing a literature review.

Step 3. Search the Literature—*Collect and Organize the Information*

A literature search determines the data to be included in the review. It does this by winnowing the research information to only the data that provide the strongest evidence to support the thesis case. When searching the literature, preview, select, and organize the data for study by using the skills of skimming, scanning, and mapping the data. Next, the researcher catalogs and documents the relevant data.

Step 4. Survey the Literature—*Discover the Evidence and Build Findings*

The literature survey assembles, organizes, and analyzes the data on the current knowledge about the topic. The data are logically arranged as evidence to produce a set of defensible findings about what is known concerning the topic.

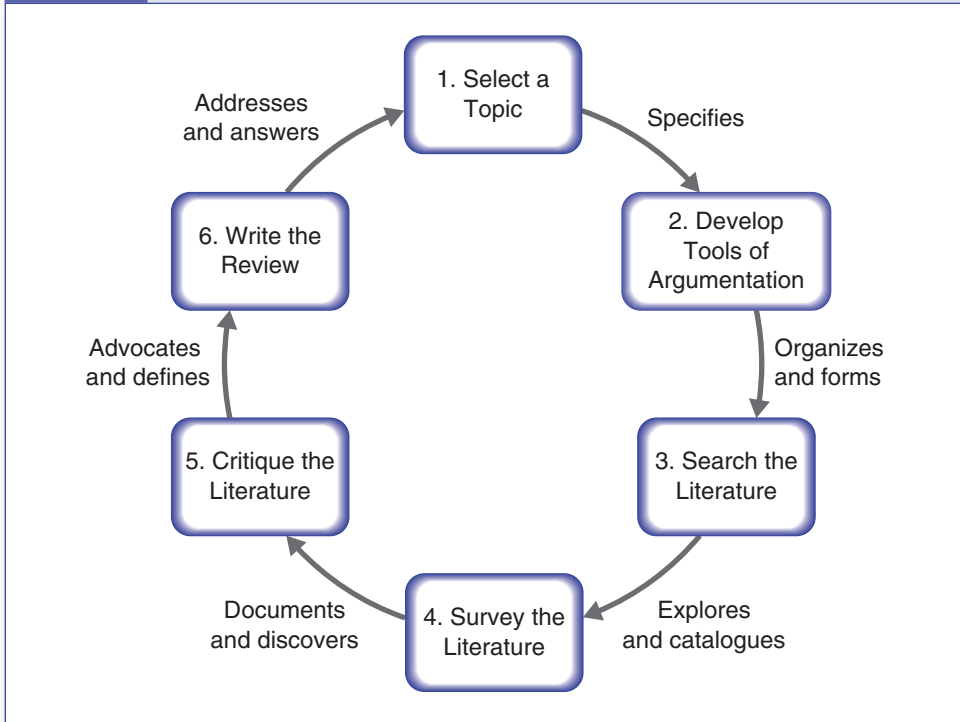
Step 5. Critique the Literature—*Draw Conclusions*

The literature critique interprets the findings produced by the survey of literature. The findings are logically arranged as conclusions to form the argument that justifies the thesis statement. The critique analyzes how current knowledge answers the research question.

Step 6. Write the Review—*Communicate and Evaluate the Conclusions*

Writing the review produces a document that communicates the results of the project. Through a process of composing and refining, the literature review document becomes a work that accurately conveys to an intended audience the results of the research. This composition requires writing, auditing, and editing to produce a polished final product—one that is accurate, complete, and understandable. Writing done in the first five steps of the literature review is used as the foundation for writing the review.

Figure I.4 The Literature Review Model



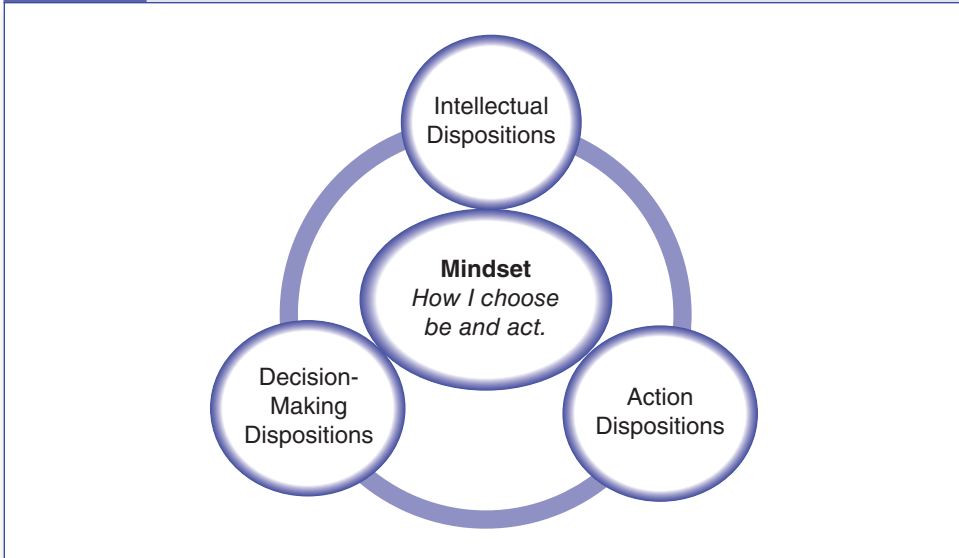
The above discussion, although condensed, relates the procedural steps necessary to complete a literature review. The following chapters will fully describe each step and will provide help to complete each of the tasks necessary for building a strong thesis case and conducting a good review.

We turn now to examining the mental attitude and stance necessary to complete a project. The next two sections of this chapter will discuss the personal dispositions required to take on this task and the reflection process used to manage and evaluate the quality and accuracy of the work.

MINDSET: PERSONAL DISPOSITIONS ON THINKING, DOING, AND DECIDING

A person's mental and emotional state plays a vital role in the outcome of the work undertaken. If this state is negative, a successful outcome is doubtful. As discussed earlier in this chapter, the procedure for doing a literature review is an application of a critical-thinking process. Critical thinking, however, is not just a recipe for thinking, it is also a specific mindset—a particular mental and emotional state. This mindset or disposition defines how you choose to be and to act when working on an analytical task such as a literature review.

Figure I.5 The Inquirer's Mindset



As depicted in Figure I.5, the critical thinker's mindset can be divided into three types of dispositions: intellect, action, and decision making. Each disposition identifies its traits and behaviors.

Intellectual Dispositions

Intellectual dispositions describe the type of thinking a person chooses to use when engaging in a task. A critical thinker chooses to be:

- ***Inquisitive.*** All successful critical thinking begins with curiosity. To think critically, one must have an inquiring mind, a natural curiosity, and a fundamental need to learn and to discover. Curiosity creates the sparks that ignite a need to explore what lies beyond the currently known. This fire, in turn, sprouts the seeds that become the fragile beginnings of the research itself. Critical thinkers continually approach their work with questions such as "Why?" "What if?" and "Is it true?" These questions and others like them stimulate the inquiry and fuel the critical-thinking process.

- ***Skeptical.*** The critical thinker is constantly raising questions. This thinker advances with skepticism and questions everything. What is being said? What does it mean? Is it supported by good evidence? Are the conclusions reasonably and logically drawn? An inquirer is constantly learning, reflecting on past work in order to navigate the present work. This thinker maintains a healthy disregard for accepted positions and questions the factual and logical basis for any conclusions. The critical thinker knows that everyone has biases, opinions, beliefs, values, and experiences that create a unique perspective and attempts to keep these in perspective.

- **Independent.** Critical thinkers do not blindly accept the positions and conclusions of others but think for themselves. They are in the habit of raising questions, finding the relevant information, building reasoned positions, and developing their own conclusions. They seek and set standards for clarity of thought, relevance of information, and reasonableness for the positions they take. Critical thinkers are not satisfied until they truly understand both the issue under consideration and a reasonable response that addresses it.

- **Honest.** Critical thinkers hold themselves accountable for their biases, viewpoints, and the conclusions taken. They continually examine and reflect on the veracity of their positions, weighing them against new facts and ideas. They suspend judgment until all facts have been gathered and considered. They can adjust and reject their opinions and positions when new facts become known.

Action Dispositions

Action dispositions describe the behaviors and traits exhibited by a critical thinker engaged in a task. Critical thinkers exercise:

- **Persistence.** The critical thinker is diligent. Regardless of the number of hours of painstaking work, the confusion and miscues encountered, or the tedium and magnitude of the task, they stay with a project until it is completed. They are dogged about seeking relevant information, following all leads and exhausting all possibilities.

- **Patience.** Critical thinkers take the time necessary to carefully and thoroughly complete the work before them. They calmly and deliberately work through the task. They strive to be precise and understand that context and subject matter dictate precision.

- **Deliberation.** Critical thinkers take care to focus on the concern at hand. They strive to maintain orderliness when working with complex tasks. They recognize their own limitations and strive to correct their discrepancies. Critical thinkers look for the nuances when reviewing information, constantly searching for connections and patterns in the data. They take care to see both the trees and the forest.

- **Collegiality.** Critical thinkers are able to share ideas and conclusions with others for feedback and evaluation. They seek out the criticism of others with the knowledge that sharing their information confirms or improves it.

Decision-Making Dispositions

Decision-making dispositions are the thought processes used when solving problems and deciding the directions to pursue when engaging in a task. They are:

- *Reasoned and logical thinking.* Critical thinkers prefer to employ rational thinking and weigh all data for their veracity and value. They seek evidence, examine the pros and cons of any question, and take positions based on strong evidence. Critical thinkers trust in the process of reasoned thinking, evidence building, and rational arguments to make their decisions.

- *Circumspect thinking.* Critical thinkers approach the research with an open mind, considering and learning from divergent viewpoints. They strive to maintain objectivity and guard against having any predetermined conclusions. The critical thinker is open to seeing all results of an inquiry and weighing the value of each piece of evidence and each position taken. When taking a position, this thinker maintains flexibility in considering alternatives. The critical thinker reflects continually.

ETHICS

No discussion about mindset would be complete without addressing the moral issue of ethical behavior.

Every undertaking has a code of ethics. Researching and writing are no different. Consider the following tenants before you begin work:

- Do not take data out of context. Researchers may not manipulate data to defend a preferred outcome. This is not just a matter of fabricating data. It also includes extending their value.
- Do your own research. Librarians and other assistants are there to point you in the right direction, but they should not be the ones to paddle the canoe through the research sites and library stacks. Doing your own research is especially important when researching online where information is available without regard to its veracity.
- Present only what you believe to be factual. Do not use fallacious arguments to prove a case.
- Present all sides of the question. Do not be tempted to strengthen a case by omitting divergent evidence. You are searching for the truth, not enforcing a personal opinion.
- Plagiarism can easily sneak into a review unless it is carefully avoided. Remember that plagiarism is not just using another person's words. It also includes presenting ideas as your own when they are actually from another's research source.
- You must be the sole writer of your literature review. Outside readers and editors can be very helpful, but they must maintain an advisory role and not become the authors of the research project.

The ethics disposition must stand above all other dispositions as an overriding behavior for conducting research. Ethical behavior is an essential quality of the good scientist.

REFLECTIVE OVERSIGHT

After consideration of procedure and dispositions as essential elements for critical thinking and for the work required for doing a literature review, the discussion turns to how to manage and evaluate this work. While you, the reader, might define this concept as metacognition, we are describing it as reflective oversight. By **reflective oversight** we mean the continuous reflection an individual uses to regulate, assess, and correct the processes used to take on a task.

Self-Regulation

Self-regulation is personal discipline used to manage and direct the quality of the work. Self-regulation can be described as considering the quality of the thinking you use when doing the work. This oversight process self-assesses and self-corrects. When engaging in a task such as a literature review, one continually reflects and monitors the procedures and thinking processes used to ensure the work's accuracy and validity.

Self-Assessment

The critical first step of self-regulation is assessment. What did I do? How did it work? These are the essential questions used when self-assessing. Self-consciously reflect on the following:

- The analytical reasoning used to verify the results produced
- The correct application of procedures and processes selected to conduct the task
- The extent to which one's thinking is influenced by deficiencies in knowledge, by stereotypes, prejudices, emotions, or any factors that constrain objectivity and rationality
- The extent to which one's dispositions influence the creation of an unbiased, fair-minded, thorough, and objective interpretation

Are my personal biases and positions affecting the accuracy of the work? Am I following quality critical-thinking procedures? Am I maintaining constructive dispositions about my work? Am I using good reasoning skills? Questions such as these are used to assess and oversee quality.

Self-Correction

The final step of self-regulation is self-correction. When self-assessment reveals deficiencies, take steps to design reasonable solutions to remedy the problem. When errors are made, correct them.

Reflective oversight is an essential aspect of the critical-thinking process. When applied to doing a literature review, it can guarantee efficiency, quality, and accuracy. More than this, reflective oversight is a learning process. The more we reflect on our actions, the more we become proficient at what we do.

Doing a literature review is a matter of procedure, disposition, and reflection. Each of these concepts is an essential element of the applied critical-thinking process used to successfully complete the work.

Before proceeding to Chapter 1, here are a number of tips that will help you become organized for the work ahead.

PLAN WISELY BEFORE YOU BEGIN

The secret of any successful journey—and a literature review *is* a kind of journey—is planning and preparation. The successful reviewer must be physically and emotionally ready and must have a plan of action. Doing a literature review well demands a commitment of focused time and effort, which will probably require a fundamental reorganization of daily life. A project such as a literature review cannot take place “when time allows” because time would probably never allow. Rather than trying to fit this new work into the already-busy day, the reviewer should seek creative solutions to reorganize the work schedule and the workplace.

First, organize a workspace free from distractions. You will need a computer with an Internet connection, copying and printing capability, notepads, writing instruments, and filing space. You will also need at least one high-quality dictionary and a thesaurus. Reference works on research methods and writing skills can also be useful. Reference tools, while available in hard copy, can now be found in abundance on the Internet and in your institution’s virtual library. Plan the space and arrange it before you begin. As with any complex project, the literature review demands concentrated mental focus. Mental discipline, in turn, demands emotional balance. Make sure that your workspace supports this frame of mind.

Having a plan decreases anxiety and ambiguity. It also increases productivity. Develop a three-tiered plan. First, create an overall project plan and timeline. Second, subdivide the overall plan into sections that act as intermediate goals for the project. Finally, build daily plans from the subsections to schedule the work for each daily session. Remember, a plan implies a goal. Give yourself permission to modify your plan, but never proceed without one. Plans provide direction and organization. They build a structure to address the ambiguous and complex world of the literature review. Below are some suggestions for planning.

1. Use the literature review model, Figure I.4, to form the overall plan. First, estimate the available monthly project time. Calculate this in hours. Then, estimate the number of hours it will take to complete the tasks for each step of the literature review. If you are not comfortable assigning task times, consult with colleagues or faculty who are experienced in literature research. Next, build an overall plan and timeline for the research. Be sure to include extra time for unplanned eventualities.

2. Subdivide the plan by benchmarks that will serve as intermediate goals for the research. These benchmarks can be time or task driven. A monthly design is one choice if time is the measurement for progress. Use the steps of the literature review model if you use task completion as the measure of progress. Put the benchmarks on a timeline, and readjust the overall plan as necessary. The benchmark division drives the work. It provides a solid schedule that addresses the tasks. At this point, the work becomes tangible.

3. Build daily plans for action. Each work session must have its goals. If possible, schedule at least a 2-hour block of time for any work session. Early morning works best for many accomplished writers, allowing the reviewer to focus and concentrate more easily. Schedule quiet time with no interruptions. We recommend daily sessions. While 2-hour sessions each day may be impractical, daily work on the project is advantageous. Allowing extended time between work sessions will blur your focus. The literature review is a serious undertaking that builds one day at a time. You cannot succeed by leaving the work for the last minute. Of course, as you use the daily schedule, the benchmarks and the overall plan may need to change.

Tips

- Study the literature review model (Figure I.4). Memorize it if possible. Use this figure to keep yourself on track.
 - Select a topic that is important to you. A subject of true concern or curiosity will produce better work than a topic chosen for expediency.
 - Writing starts now. Write out the topic. Include in this earliest writing what you already know, or think you know, about the topic. This writing will be the beginning of the project journal. Using a computer to keep the project journal will allow for easy additions and changes as they become necessary.
 - Plan each step and write it out. Completing the work diligently, and in order, takes far less time than going back to pick up missed steps.
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SUMMARY

The purpose of this chapter was to provide a general introduction to both the conduct and the product of a literature review. The chapter also provided a discussion of the dispositions and reflective oversight required to guarantee the success of the project. This chapter ended with preparation tips to help launch a successful literature review. With a preliminary understanding of the project, a thoughtful mindset, and a plan, you are ready to tackle developing the research topic, which is the subject of Chapter 1.

CHECKLIST

Write your responses to the checklist below. Review what you have written for accuracy and feasibility.

<i>Task</i>	<i>Completed</i>
1. Write the definition and the purpose of a literature review.	<input type="checkbox"/>
2. What general interest are you going to explore? Be specific.	<input type="checkbox"/>
3. Describe your plan to use the six steps needed to create a successful literature review.	<input type="checkbox"/>
4. Describe the tools and workspace you have planned. How will you create your space?	<input type="checkbox"/>

REFLECTIVE OVERSIGHT

The purpose of reflective oversight is to self-correct the process covered in each chapter. Reflective oversight includes two steps. Step 1 is assessing the quality of the completed tasks listed in the checklist. Step 2 is deciding what needs to be done next. What additional skills and knowledge are necessary to correct any problems revealed by your assessment? How do you plan to acquire any necessary skills and knowledge?

1. Take some time to think carefully about this general interest. Is it of sufficient personal interest for you to devote the necessary time to pursue it?
2. After reflecting on your responses to the checklist, what do you still need to learn and do in order to move ahead?