

2 **Conducting a Literature Review and Developing a Theoretical/Conceptual Framework**

Objectives

- Readers will be able to:
 1. Conduct a literature search
 2. Choose relevant literature
 3. Write about their selected literature
 4. Select appropriate theories or concepts
 5. Develop a theoretical/conceptual framework

Conducting a Literature Review

Conducting a literature review is not an easy endeavor. It can be time consuming and labor intensive. However, a literature review is worth the investment, due to the huge benefits it accrues when done right. Before we move further to outline the rationale, process and importance of conducting a review of existing literature, let's first define the literature review. A literature review is a process of searching for and selecting relevant literature, with the purpose of critically analyzing them and presenting the outcome.

Conducting a literature review is a great opportunity to solidify what you want to study. Exploring empirical research articles, conceptual/theoretical papers, books, position papers, government agency reports, evaluation reports and the like helps you to better understand your topic or the problem of interest.

One may ask, "Why should I review literature? I have already identified a topic I'm passionate about, and I think this is unique and I believe no one has done it before. I'll be the first person to explore this idea. I'll one day be an expert in this emerging area."

One of the core features of conducting research is to contribute to the existing body of knowledge. The question is how can one best contribute without knowing how, where and when to contribute, and even why there may be a need to add to what is existing? The advancement of scientific knowledge always depends on the research community's dedication to familiarizing themselves with existing knowledge and engaging in inquiry to build on it. Similarly, knowing what has been done

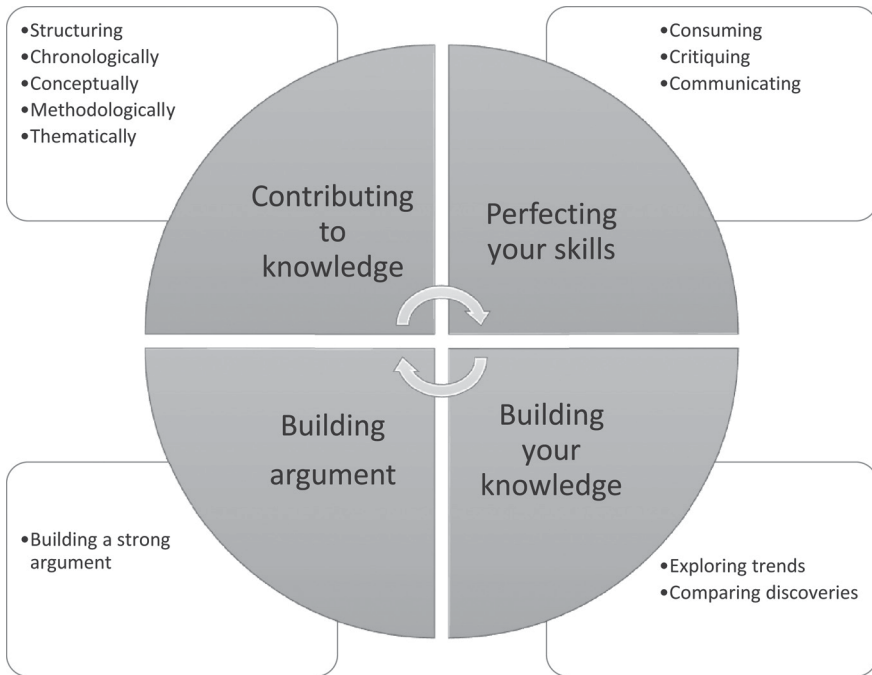


Figure 2.1 *The essence of engaging in a review of literature.*

helps in discovering gaps in the literature and determining which one you would want to fill.

Even if you are conducting an action research study in which your main intent is not to contribute to the body of knowledge but to address the problem of practice, a literature review is still relevant. You could learn about existing concepts, theories and best practices, and it could inform your action research.

Have you thought about what you are doing a literature review for, regarding your dissertation project? You may give a general, well-known reason such as knowing what has been done, identifying a gap and demonstrating that you have well researched the topic (Callahan, 2014). Thinking deeply about why you are doing a literature review as a part of your dissertation, you may notice that there are four main goals you are expected to achieve (see Figure 2.1). The essence of you engaging in this learning experience of conducting a literature review is to:

- Perfect your skills in consuming, critiquing and communicating academic research, concepts and theories
- Build your knowledge about the topic through exploring research trends and comparing research discoveries
- Generate an argument(s) in support of your study

- Contribute to existing knowledge through structuring the review based on a sequence of ideas, sub-topics, methods and/or population

Perfecting Your Research Skills

It is important to note that, separate from general information in books and articles about why we conduct a literature review, there are other relevant reasons why students doing their dissertation should review literature. One reason is that doing a literature review helps students to perfect their skills in consuming, critiquing and communicating research projects. After the end of their literature review experience, they should be able to recognize differences among empirical research articles, positional papers, conceptual/theoretical articles, editorial pieces, evaluation reports or government white papers. Being able to differentiate between these documents is the gateway to selecting the right literature for your review. After reading and gaining an understanding of the literature, you can then critically examine the literature – exploring the quality of all the components of the literature. Successfully examining the literature should lead to the following questions:

- What kind of literature should I consume?
- How should I consume them?
- What is the purpose of reviewing the literature?
- What is the consistency among the components of the literature?
- What claims does it make?
- How does the evidence support the claims?
- What is the purpose-driven outcomes of the literature review?
- Who are the literature review outcomes communicated to?
- How should the literature review be presented?

Being an Active Research Consumer

As a doctoral student working on your dissertation project, one of the rationales for conducting a literature review is to equip you to become an active research consumer. As you are thinking and searching for the right kinds of literature related to your topic, you are being exposed to a variety of articles, papers, reports and editorial pieces. This experience helps you to recognize and distinguish among literature and facilitates the selection of the right literature for review.

There are two main types of literature: black and white literature and grey literature. Any literature published by a commercial publishing company (or an organization whose main mission is to publish literature) is considered black and white literature (Western University, 2012). Some of the publishing companies that publish academic literature are Routledge, SAGE, Springer, Elsevier, Oxford University Press, Harvard University Press and University of Chicago Press, just to mention a few. Peer-reviewed articles, including empirical, conceptual, theoretical and the like, are some of the literature published by these companies besides producing academic books.

Since you are doing research on a chosen topic, the first set of literature you should look for to review is peer-reviewed articles that are authors' reports of the study they did. You could also look into conceptual and theoretical articles, including positional papers relevant to your topic. In addition, grey literature would be a great source of information, especially when there is limited black and white literature. So, what is grey literature? It is literature published by organizations or entities that do not engage in publishing as their sole focus (Western University, 2012). Examples of grey literature are reports from government agencies, corporations and non-publishing businesses, dissertations, white papers, blog posts and the like (McKenzie, 2022).

Besides being able to determine different kinds of literature, as an active research consumer you are able to select the literature not only relevant to your topic but also acceptable as appropriate literature for review. The first-tier literature (such as empirical research articles) you need to access for review is peer-reviewed literature. This is because this kind of literature has been vetted by the author's peers in the research community, making sure the articles are of good quality and meet the research standards and publication criteria ascribed in the publication guidelines of the publishing journals.

You could supplement selected empirical research articles with positional, conceptual and theoretical papers, including grey literature, especially when conducting a literature review and having limited research articles. In a nutshell, doing a literature review helps in gaining skills to become an active consumer of research. As an active consumer of research, you should be able to distinguish between the literature types and select the ones that are relevant and related to your topic.

Being a Good Critic of Research

Conducting a literature review at the dissertation stage helps you to be a good critic of literature. As a critic of research literature, you have to know what is required in each component of the articles you are reviewing. The review starts with having a general sense of the literature in terms of who the authors are, what the document is about and what they hope to achieve in writing the article. Having a general sense starts with reading the document to understand what they want to communicate to the audience (i.e., research/academic community). At this point, you could document the main points/ideas in the literature, such as:

- The problem the author(s) wanted to address or the main issue that warranted engaging in that inquiry
- The purpose of the empirical study or non-empirical inquiry
- The research questions or issues that needed to be addressed
- The research methods or strategy used to address the issues
- The data collection procedure
- The data analysis process
- The findings
- The interpretation of the findings

This will aid in conducting a critical examination of the literature. As you are extracting ideas from the literature, you could also document what you see. Keeping notes of your thoughts can be called memoing. Some of the questions that could facilitate your reflection practice are as follows: What do I think about what the author is presenting/saying? How are the main areas/ideas identified in the literature related to my topic? What is interesting about the literature? Is there any surprising information I want to take note of? How consistent are the components of the literature? Answers to these questions will be helpful when you start your critical evaluation of the literature. Your goal here is to assess the literature and compare its components to a set standard in terms of research quality, transparency and consistency. This implies that you need to know what good literature looks like before you can adequately and critically evaluate articles, reports and research documents.

Let's limit our discussion to empirical and conceptual research articles (see Table 2.1). What conditions should a research or conceptual article meet to determine it is a good one? As researchers reviewing a peer-reviewed article, should we focus on assessing its quality or do we not have to, since we could assume that the article has passed through a rigorous review process before its publication? Even if it is so, we think it is still beneficial to review for quality. In acting as a second eye to the reviewer – curiously looking for best practices and potential flaws – you are familiarizing yourself with what the characteristics of good research looks like and gaining skills in extensively evaluating research articles.

Conceptual Article: Component

The articles should clearly state the phenomenon the authors want to explain, the problem they plan to address, concepts, models and/or theory selection procedures and their roles (Jaakkola, 2020). The authors explain each model or theory, describing what they represent and what their properties are, including associated assumptions. Besides this, conceptual articles highlight and/or establish relationships among the concepts, providing evidence in support of the relationships. According to Jaakkola (2020), there are three elements a conceptual paper should have: claim, grounds and warrant. A claim could be an assertion, conclusion or inference one makes.

Table 2.1 Kinds of academic articles and their respective features and examples

<i>Literature</i>	<i>Feature</i>	<i>Example</i>
<i>Empirical research article</i>	A report of a primary study that involves data collection and analysis (Jaakkola, 2020)	Burkard et al. (2014)
<i>Conceptual paper</i>	An article that contains a summary, review, synthesis and/or discussion of concepts, models and/or theories (Jaakkola, 2020).	MacInnis & de Mello (2005)

Grounds are evidence that support the claim. The conditions that need to exist for the claim and grounds to be valid is warrant (or assumption) (Jaakkola, 2020).

Empirical Research Article: Components

The article should have a problem that has been addressed in the study, a review of the literature, purpose of the study, research method, procedure, data analysis, results and discussion. The article should narrate the issue that necessitated the need to conduct the study, using the literature to layout where the study was in relation to research done about the topic and what contribution the study has made. There should be a statement of what the research hoped to achieve and questions the researcher(s) addressed in the study. It should have information about the research method used and related data collection and analysis procedures. The outcome addressing the research question(s) should be provided, including the interpretation and implications of the findings. In conclusion, here are the five issues you should be looking for when reviewing an empirical research article:

1. Focus of the study
2. Goal of the study
3. How data was accessed and assessed
4. Findings of the study
5. Conclusions made based on the findings

Being a Communicator of Research

Conducting a literature review improves your skills in communicating research studies in a way that is meaningful and meets the needs of the audience. See yourself as a commentator or analyst of a specific game (let's use soccer as an example). Before the match, the commentator/analyst provides a preview of the performance-related history of the two teams, helping the audience to put the soccer match into proper perspective, exciting the crowd about what they should expect and helping them to properly connect what may happen during the match to the previous happenings. In addition, the pre-match commentary/analysis helps the spectators to make sense of the outcome of the match. Similarly, your role at the literature review stage is to provide a preview of what has been done. The preview should be intentional and well thought through – knowing what is expected of you and the needs of your audience. When writing about the literature you have reviewed, you need to be transparent, sharing how relevant literature was accessed and sampled for the review. This will contribute to making your literature review process repeatable and the outcome of the review credible. You also need to craft the review in such a way that it meets the goal of the review. You need to make sure readers can easily follow your flow of thoughts and you are presenting a narration of the literature about your topic in a historical or topical manner. As a communicator of research, your role is to extensively digest relevant literature and present the literature review outcome in such a way that readers understand what you are

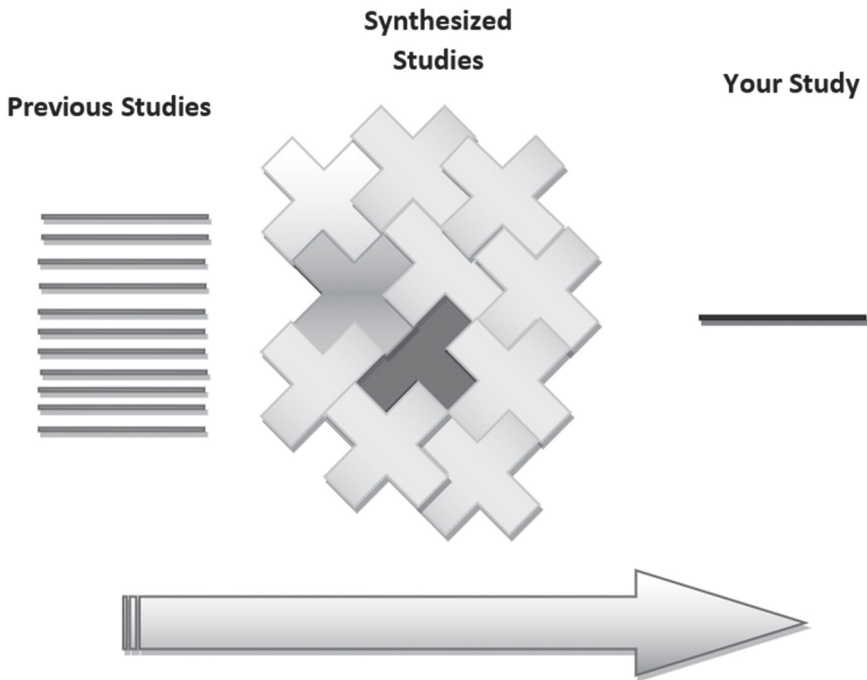


Figure 2.2 Literature review process.

presenting and can make sense of where you are in relation to studies done and where you are going, connecting it to what you want to do (see Figure 2.2).

Building Your Knowledge

Before doing research, you need to be knowledgeable in the area you are researching. One of the main ways is by familiarizing yourself with the research done or issues scholarly discussed about your topic. Reviewing literature is the beginning of your journey to becoming an expert in the area you are studying. You gain skills in exploring trends and comparing discoveries.

Exploring Trends in the Literature

As you keenly review the elements of literature, especially empirical or conceptual research articles, you may notice patterns that need further exploration. For empirical studies, you are interested in examining the focus of the study, the method used, results after the data analysis and the conclusions made based on the findings. For conceptual papers, you are looking into the phenomenon being examined, claims made, evidence provided and assumptions presented (Jaakkola, 2020). Exploring

patterns in the literature helps in determining where to appropriately situate your study.

Comparing Discoveries in the Literature

As you keenly go through the literature, you may see interesting information that needs further examination. You could do a cross-section analysis, which involves comparing and contrasting ideas and elements identified in the literature (for example, a research article). For instance, checking consistency across purpose, research questions and findings is considered one of the cross-section analysis techniques. We also have cross-case analysis, where you compare and contrast ideas and elements across literature. Before comparing literature, you need to establish the basis of the comparison. The question is, what brings together the literature you are comparing? Is it the topic, method used, population, procedure or findings (just to mention a few)? After establishing the basic commonalities among the literature, you then explore the similarities and differences among them with respect to a specific issue, such as the demographics of participants. You can consider exploring studies with the same topic and methodology but different results or conceptual literature with the same focus but a different theoretical perspective.

Building Arguments

Engaging in a literature review assists in gaining the skill to make strong arguments in support of your study. One of the purposes of conducting a literature review is to help provide a rationale for your study. The questions that readers of your research documents want you to address are how relevant is your study, considering what has been done, and why is your study important, considering previous studies done? This is where you provide strong arguments justifying the need to conduct your study and properly situating your study among studies related to your topic.

An argument should have four main elements, namely, claim, evidence, assumptions (which could be implicit or explicit) and conclusion (Jaakkola, 2020). When writing a review of the literature, you are expected to present your observations or conclusions drawn from an extensive examination of studies done and information written in relation to your topic. For example, you may observe that there are limited studies done on a topic using qualitative approaches. What evidence do you have to support this claim? Can we assume that you have extensively searched enough studies done on your topic before making this claim?

Contributing to Knowledge

Conducting a literature review helps in gaining the skills to contribute to the existing knowledge of a field. By conducting a review, you are helping readers to be abreast with the trend and with discoveries in the field in relation to the topic of interest. As you gather and synthesize relevant literature and others also do similar reviews, the

Table 2.2 Literature review presentation format and examples

<i>Literature review presentation</i>	<i>Example</i>	
	<i>Article title</i>	<i>Authors</i>
<i>Chronological presentation of a literature review</i>	“The History and Future of Genetically Modified Crops: Frankenfoods, Superweeds, and the Developing World.”	Glass-O’Shea (2021)
<i>Thematic presentation of a literature review</i>	“An Organizational Intervention to Reduce Physician Burnout.”	Gregory et al. (2018)
<i>Conceptual presentation of a literature review</i>	“Burnout in Nursing: A Theoretical Review.”	Dall’Ora et al. (2020)
<i>Methodological presentation of a literature review</i>	“Mixed Methods Research Designs in Counseling Psychology.”	Hanson et al. (2005)

body of knowledge in the field of study continues to increase. You are also setting the stage for current and future researchers to build on what you have created. The outcome of the review (i.e., knowledge) could be presented chronologically, thematically, conceptually and/or methodologically (see Table 2.2).

Chronological Presentation of a Literature Review

If your goal of reviewing literature is to show the studies done and their related purpose, method, findings and conclusions across time, presenting the review in a chronological manner would be great. If as part of the literature review you plan to explore how a theory, model or phenomenon has been studied over a period of time, then you could do a chronological presentation of the literature. In other words, when writing a review chronologically, you are presenting a synthesis of literature about a topic spread out across a set period of time.

Thematic Presentation of a Literature Review

This is quite similar to presenting qualitative findings, where themes with supporting evidence are generally presented. With this approach, you first determine the themes/concepts you want to explore and write a review on. You then organize components of the literature under their respective themes before presenting a synthesized review under their respective themes related to the topic of interest.

Conceptual Presentation of a Literature Review

This is about presenting a synthesis of the literature based on a theory and/or model selected for the study. With this kind of presentation, you discuss the literature in terms of researchers’ development, confirmation, refinement and

explanatory characteristics of theories and/or models. One strategy of writing a literature review in a conceptually structured way is to present each relevant theory or model and discuss studies done or papers written about it, exploring its capacity to explain the phenomenon of study.

Methodological Presentation of a Literature Review

This is where you present a review based on the research methods used. This type of presentation is more appropriate when you want to justify why you have selected a particular research method. It is also a way of comparing research findings and conclusions across qualitative, quantitative and mixed methods studies. It can also be used to show whether studies with diverse methods arrived at similar findings and/or conclusions.

Searching for Relevant Literature

Searching for relevant literature starts with addressing the following questions: What kinds of literature are you looking for? Where are the potential sources of literature relevant to your topic? How do you search for the literature? To put it differently, when conducting a literature review, you need to know the kinds of literature you are looking for, potential sources of the literature and the search strategies you plan to use. The literature search process should be thoughtful, thorough, systematic, transparent and documented. When writing about the outcome of the literature you reviewed, you need to demonstrate that you have done a comprehensive search of the literature related to your topic. This could contribute to the credibility of your literature review outcome.

Deciding on the Kinds of Literature to Review

Deciding comes after familiarizing yourself with the features of objects or phenomena you are deciding on. In this case, it is important to be knowledgeable about the kinds of literature that researchers in your field normally use to conduct their review. As mentioned above, generally we have two kinds of literature: black and white literature and grey literature. As already suggested, focusing more on peer-reviewed articles would be great. However, if there are limited peer-reviewed articles related to your topic, we suggest you consider looking into other articles, including relevant grey literature.

Deciding on Where to Find Relevant Literature

There are a lot of databases you can choose from. You could start with the ones that are related to your discipline. Some of the more popular databases include ECOhost, MEDLine and the like. Other publishers such as Routledge, SAGE and the like have databases of articles and books that can be explored. There are also open-source databases such as the Directory of Open Access Journals,

ScienceOpen and OpenDOAR that may have literature relevant to your topic. The Google Scholar search engine can easily display potential academic literature and where you can access them if they are not readily available. Lastly, ResearchGate, which is a site where researchers share mainly research articles and ideas, could be another source of getting access to relevant literature.

Determining Literature Search Strategies

Similar to Google Search, when searching for literature related to your topic, you are retrieving literature that has a specific word or group of words and/or a word or group of words related to a specific word or phrase. Before you determine appropriate literature search techniques to use, you need to familiarize yourself with the signs used for searching: AND, OR, (), “ ” (CityU, 2022). It is important to note that search strategies may differ depending on the kind of database you are using. However, Table 2.3 has the ones most commonly used. Also, these search command symbols do not apply to non-traditional academic databases and other academic social media platforms such as Google Scholar and ResearchGate.

Apart from searching electronic databases (as described above), there are two other strategies you could use to search for relevant literature: backward searching and forward searching (Xiao & Watson, 2019). Backward searching involves looking at the reference list of a relevant literature to see whether there is potential literature of interest. However, with forward searching, you look for literature that has cited a relevant literature. Google Scholar is a useful tool for the forward searching strategy (Xiao & Watson, 2019). When you use Google Scholar to search for a particular article or book, it will show a list of literature that has cited that literature.

Table 2.3 Search command symbols, their meaning and examples

<i>Search command symbol</i>	<i>Meaning</i>	<i>Example</i>
OR	Searching for literature that contains Concept A or Concept B	Burnout OR Fatigue
AND	Searching for literature that has both Concept A and Concept B	Burnout AND Fatigue
NOT	Searching for literature that does not have Concept A	Burnout NOT Fatigue
*	Searching for words that have the same stem word	Prevent*
()	Grouping search commands	(Burnout NOT Fatigue) OR (exhaustion)
?	Searching for literature with a word and its variations based on changes in a character or group of characters in that word	Organi?ation

Determining Literature Extraction Criteria

The next action you need to take is to determine the parameters of your search in terms of year of publication, the discipline within which the literature was published, the kind of literature and other related extraction criteria (Adu, 2021). At this stage, you have to be flexible. Your initial extraction criteria may not yield the desired response. You should be ready to adjust them and explore other databases until you arrive at the desired outcome. You should be ready to either narrow or broaden the search. Here are some of the questions you could think about if your initial search did not yield a satisfactory outcome:

- Should I adjust the search terms?
- Should I use another database?
- Should I change the publication date range?
- Should I include other kinds of literature, including grey literature?
- Should I explore Google Scholar?

Searching for Relevant Literature

By now, you know the search strategies and extraction criteria you should use. The next step is to do the actual searching. At this point, you need to be flexible because your initial search may not yield the desired outcome. You could have a lot of literature, resulting in the need to adjust the filtering options. Conversely, your search may produce very little literature. You could address this by making adjustments to your search strategies and extraction criteria, exploring another database and/or using the forward or backward search strategy.

One may say, “I can’t find literature related to my topic.” If there is limited research done about your topic in your field or discipline, you can explore other fields to see whether similar topics have been treated (see Table 2.4). If there is limited research done related to the kind of population or research location you want to study, explore studies done about your topic with similar participants/population or research location. For instance, if there are limited studies done about the people of Ghana, you could look into studies done on any of the African counties that are related to your topic. If there are limited studies done about the concept you are studying, you can look at studies done on other related concepts. For example, if you are doing research on burnout, you could also explore studies on physical and mental exhaustion.

Managing your Search Outcomes

Managing your search outcomes is simply retrieving relevant literature you have searched for and finding a place to store it for easy access and review. Traditionally, this is done by downloading (if they are in an electronic format) and storing them on your computer or printing them to have hard copies. Alternatively, you could use a literature management application to easily store the literature, including

Table 2.4 Strategies for searching for literature after an unsuccessful initial search

<i>Area</i>	<i>Similar</i>	<i>Narrow</i>	<i>Broad</i>
<i>Theory</i>	Exploring studies done on similar theories	Searching for studies done on a narrower theory	Searching for studies done on a broader theory
<i>Concept/phenomenon of study</i>	Exploring studies done on similar concepts/phenomena	Looking into studies done on concepts/phenomena narrower than your initial focus	Searching for studies done on concepts/phenomena broader than your initial focus
<i>Population of focus</i>	Searching for studies on a topic of interest done with a similar population	Exploring studies on a topic of interest done with a smaller population	Exploring studies on a topic of interest done with a larger population
<i>Discipline</i>	Searching for studies on a topic of interest done with a similar field	Exploring studies on a topic of interest done with a sub-discipline	Exploring studies on a topic of interest done with a larger discipline

reviewing and making notes. Some of the more popular ones are RefWorks, Mendeley, Zotero and Endnote. Due to continuous technological advancement, there may be new and improved literature management software with high functionality and user-friendliness. Therefore, before you select a literature management application, list a specific task you want it to be used for and review existing software to see which one can help you meet your literature review goals. You could also check with the librarian in your institution to see whether the institution has a particular application available to students.

Selecting Relevant Literature

Let's use fishing as an analogy. Now that you have finished fishing, it is time to review what you have in your net. Sometimes, not everything you caught in the net is what you wanted. You may need to review what you have and dispose of what you didn't like or expect. Similarly, after extracting literature, you need to do a quick review to determine which literature is truly relevant and eliminate literature that is irrelevant to your topic. It is always a good strategy to have a specific criterion for selecting the right literature for review. It makes the selection of articles for review more systematic and transparent and less biased in terms of choosing what you like for the review (Machi & McEvoy, 2012).

So, the question is, "What conditions should literature meet for it to be part of the literature you plan to review?" It would be great if you listed specific criteria the

literature should meet. You could use the following questions to help you generate literature selection criteria:

- What information do you want to see in the title, abstract, introduction or body of the literature for the literature to be selected?
- What type of literature will you select for the review?
- If the literature is about research, what kind of research are you looking for?
 - Are you looking for:
 - Traditional research, action research and/or program evaluation studies?
 - Qualitative, quantitative and/or mixed methods studies?
- Will scoping review and/or systematic review studies be part of the selected literature for review?
- Should the qualifying literature be from a specific country?
- What research location and/or population should the research literature focus on for it to be selected?

Selecting relevant literature and reviewing it can be done sequentially or concurrently. With the sequential strategy, you start with skimming through literature to determine whether it meets the set criteria. After skimming all the available literature, you review the selected literature. With the concurrent approach, when you skim literature and it meets the criteria, you review it before moving on to skim other literature.

When selecting literature, with the criteria in mind, you could first look at the title, abstract, summary and/or conclusion to help you decide which is appropriate (Subramanyam, 2013). Sometimes, you can determine the right literature by just looking at the titles. If you are not sure about selecting literature by reviewing the title, you could look at the abstract, summary or conclusion (Subramanyam, 2013).

Extracting Relevant Information

Now that you have selected the literature to review, the next step is to extract information that will be helpful for you to write the review. You may ask, “How can I determine which information is relevant for my review?” Firstly, the information should have some connection to your topic. Secondly, it should help you meet the purpose of the review. Lastly, it could be used to support the claims you will make when writing the review. You could use one of the three main strategies to extract relevant information from the selected literature. These are developing:

1. An annotated bibliography
2. A literature characteristics matrix
3. A literature matrix based on themes

Developing an Annotated Bibliography

This involves reviewing literature, generating pertinent pieces of information and writing a summary that reflects the ideas gathered and connects to the topic

of interest. Besides having a summary, an annotated bibliography should have a responding reference. To put it differently, an annotated bibliography contains references and their respective summaries. For empirical literature, the summary could be based on the problem of the study, research purpose, research question, participants, data collection and analysis, findings and their interpretation and conclusions. For non-empirical literature, you could investigate the claims and their associated assumptions, evidence in support of the claim and concluding statements to help you generate summaries (Jaakkola, 2020).

Creating a Literature Characteristics Matrix

This strategy involves creating a matrix with all the literature selected and their features, including a summary of their main components. The characteristics may include author(s), year of publication, title and type of article/literature. Also, the matrix could include the problem of the study or the problem the article has addressed, the purpose of the study or the non-empirical literature, research questions, method used, participants' characteristics, data collection and analysis strategies, findings and their interpretation and conclusions. When completing the matrix, we recommend you provide (in your own words) brief information about each component under each piece of literature. It is important to note that creating the matrix is not the end of the literature review but a means to writing a strong, insightful and comprehensive synthesis of the literature.

Creating a Literature Matrix Based on Themes

This strategy involves creating a matrix or table that shows information extracted from the literature and their corresponding themes and literature. One of the strategies for developing themes is description-focused coding (Adu, 2019). With this coding strategy, you go through each piece of literature, extract information that is relevant and generate a phrase (i.e., a theme) that best describes the excerpt. The theme will then be connected to subsequent excerpts selected from the literature.

When extracting and organizing information from the literature, you could use existing themes (i.e., the content analysis technique) or generate them as you go through the literature (i.e., the thematic analysis technique). With the content analysis technique, you could develop themes based on the conceptual/theoretical framework, a theory or a group of theories that informs your study or sub-topics associated with the focus of your study.

Other Innovative Strategies

When it comes to reviewing literature and extracting what you need to help you write about what has been done and talked about with respect to your topic, there are many innovative ways of going about it. Some just take notes, writing about what they have observed in the literature, then examine the notes to highlight patterns discovered and write about those discoveries. Other researchers document what they see in the literature alongside their thoughts, leading to the presentation

of an analytical synthesis of what they have learned. We suggest that you review best practices of conducting a literature review and select strategies that you can efficiently and effectively use to provide a well-written and informative review.

Writing About Your Selected Literature

You start the writing process by describing how you searched for and selected your literature. This also involves showing the sources of the selected literature and the selection criteria you used. All this information contributes to promoting transparency in the literature search and extraction process. It also helps in highlighting the best practices and educating researchers in effective ways of conducting a literature review. Lastly, providing your literature review process promotes credibility of your outcome of the review.

You then need to decide whether you want to present the review “chronologically, thematically, conceptually, methodologically or a combination” (Frederiksen & Phelps, 2018, p. 93). These types of review have been discussed earlier, but irrespective of the type you plan to use, you need to synthesize what you found in a meaningful way.

A synthesized review portrays a well-constructed combination of ideas, concepts and assertions from the literature that are seamlessly presented in a logical manner. To simplify, each of the main paragraphs should have a claim (which could also be called a topic sentence), definition or explanation of the claim, supporting statements or evidence and a concluding statement. Alternatively, you could creatively present these elements in a variety of sequences, but the most important thing is that the paragraph contains the components listed above.

Understanding the Conceptual/Theoretical Framework

A conceptual/theoretical framework is a group of statements that discusses theories and/or concepts related to your focus of study (Adu, 2020). Visual representation could be used to reflect selected theories and/or concepts and connections between them. You may ask, “Why should I have a conceptual or theoretical framework when conducting research?” In order to effectively contribute to the field or to best practices in your profession, you need to identify and use already-developed theories and/or concepts related to what you are studying.

Exploring the Goal of Conducting Research

Looking at the three main types of research, the main goal of conducting traditional research, action research and program evaluation is to fill a research gap, address a practical problem and access a program to develop, discontinue or improve, respectively. To understand how you can effectively meet the goal of a study, you need to first make sense of how researchers and research practitioners build knowledge and improve research best practices.

We do research to study behaviors, situations, phenomena and/or events. When conducting a qualitative study, we end up generating concepts and ideas. Based

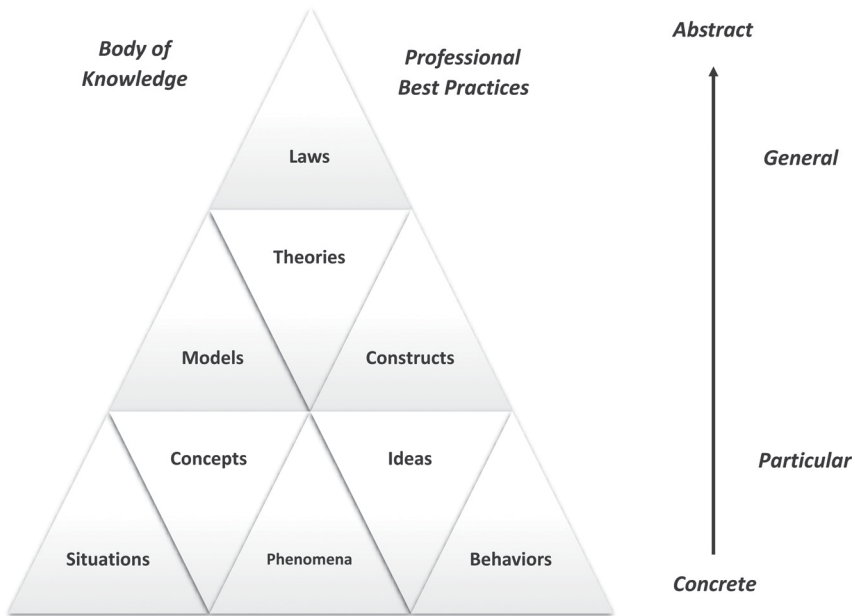


Figure 2.3 How a body of knowledge and professional best practices are built.

Source: Adapted from Adu (2020).

on the aim of the study and the research questions and research method used, we could further explore relationships among the concepts and ideas to generate constructs, models and/or theories.

With these constructs, models and/or theories, we could conduct quantitative research, generating hypotheses and testing them. As we continue to do quantitative, qualitative and mixed methods research, ideas, concepts, constructs, theories and laws are built, confirmed, refined and/or rejected. As we do research, we continue to contribute to the development of the body of knowledge and best practices in the field we are affiliated with (see Figure 2.3).

When conducting research, you could select concepts, constructs, models and/or theories, creating a framework to help inform your study (see Table 2.5). So, a conceptual/theoretical framework is like a bridge connecting your study to existing models, theories and the like. In other words, creating such a framework helps in connecting the concrete focus of the study to an abstract body of knowledge or general best practices (see Figure 2.3).

Developing and Writing a Conceptual/Theoretical Framework

Developing and writing your conceptual/theoretical framework can be a challenging task. You are expected to look for the right model or theory that best relates to

Table 2.5 *Research-related terms, their meanings and examples*

<i>Term</i>	<i>Meaning</i>	<i>Example</i>	<i>Reference</i>
<i>Concept</i>	A term “representing a particular behavior, situation or idea” (Adu, 2020, slide 7)	<ul style="list-style-type: none"> • Blended learning • Flipped classroom • Gamification • Instructional effectiveness • Learning outcome 	Adu (2019); Green (2014)
<i>Construct</i>	“Comprises of concepts and the connections among them” (Adu, 2020, slide 8)	<ul style="list-style-type: none"> • Classroom management • Cultural intelligence • Emotional intelligence • Personality trait • Quality of life 	Jabareen (2009)
<i>Theory</i>	<ul style="list-style-type: none"> • “Contains concepts/construct, [and] relationships among them” • “Explains and/or predicts [a] situation, phenomenon [or] behavior” • Can be “refuted, confirmed, [or] adjusted” (Adu, 2020, slide 9) 	<ul style="list-style-type: none"> • Behaviorism • Cognitivism 	Abend (2008); Wallis and Wright (2020)

what you are studying, which can sometimes make you feel as if you are looking for a needle in a haystack. After selecting the right model or theory, you are expected to explore what it stands for and the assumptions associated with it. You then demonstrate how it is related to your study and describe the role it will play in the study. The final step is to write about your framework and develop an illustration (if possible) to represent it. A book by Larsen and Adu (2021), *The Theoretical Framework in Phenomenological Research: Development and Application*, details the conceptual/theoretical framework development and writing process.

Identify Theories or Models Related to Your Topic

During this stage, you look at literature to locate specific models and/or theories that are related to what you plan to study. For example, if your study is about how burnout is experienced, you could identify theories or models that explain burnout, such as equity theory, Maslach theory and job demands-resources theory (Larsen & Adu, 2021). In terms of a specific strategy to access potential models and/or theories, you could use a scoping review. Scoping reviews are a type of literature review that focuses on “searching for information about a phenomenon of interest, organizing and analyzing what the researcher found, and providing a summary of the outcome of the review” (Larsen & Adu, 2021, p. 145).

Table 2.6 Questions to ask to select the right model or theory

<i>Question to ask</i>	<i>Yes</i>	<i>No</i>
<i>Is the model or theory identified related to the focus of your study?</i>	Then move on to assess how much the model/theory covers, explains or addresses what you are studying	Then review other models or theories to see whether they have any connection with what you are studying
<i>Does the model or theory have the potential to fully explain the phenomenon of study?</i>	Then use it to build your conceptual/theoretical framework	Then explore other models or theories that can better explain or complement the initial model or theories in explaining the phenomenon of study

Alternatively, another strategy you could use is to take note of models and theories when reviewing literature. This will save you a lot of time, since you are simultaneously working on reviewing literature and keeping your eyes on potential models and theories for the development of a conceptual/theoretical framework.

You may ask, “How do researchers determine the best model or theory for the development of their framework?” According to Dix (2008), there are two things you should take into consideration when selecting a model or theory for your study: the degree of relatedness and the degree of completeness (Dix, 2008). Assessing whether the potential model or theory relate to what is being studied and how much it covers or explains the focus of the study will help you to determine the right model or theory for your study (Dix, 2008; Larsen & Adu, 2021) (see Table 2.6).

Also, you may ask, “What if I did not get the right model or theory?” We suggest you explore whether more than one model or theory could help explain the phenomenon of study. You could also consider incorporating concepts into the building of your framework.

Examine the Characteristics of the Selected Model or Theory

This is the stage where you learn a lot about the selected model, theory or concepts by addressing the following questions:

- What is the description of the model or theory?
- What is the model or theory explaining?
- How was it created?
- What are the assumptions, limitations and delimitations associated with the model or theory?
- What are the components or concepts associated with the model or theory?
- How is the model or theory related to what you plan to study?
- How much does it explain the phenomenon of study?

Asking yourself these questions will help you to better understand how the selected concepts, model or theory relate or explain the focus of your study. In terms of examining the assumptions related to the selected model or theory, your goal is to find out what needs to exist or be true in order for the model or theory to be valid (Adu, 2023; Epstein, 1984). Concerning the limitations, you need to look for what the model or theory fails to explain or cover because of covering a specific aspect of a phenomenon. Lastly, the delimitations of the model or theory are about what the limits or boundaries of the model or theory are in terms of what kinds of concepts are involved and aspects of the phenomenon of study that can be explained (Adu, 2023).

Determine the Use of the Selected Model or Theory

After selecting the right model or theory, the next step is to determine how you plan to use it in the study. It could be used to explain, represent, justify, inform or view the study (see Table 2.7) (Larsen & Adu, 2021).

- **Using the model or theory as an explanatory tool:** You may have identified a problem you plan to study but have limited understanding of areas such as the emergence, frequency, causes and emergence of the problem. A model or theory could be used to help provide a potential explanation of the problem and get a better understanding before the implementation of the study (Larsen & Adu, 2021). It can also be used to explain a topic, facilitating the determination of the focus of the study. In addition, by using it as an explanatory tool, you also assess the model's or theory's strengths and weaknesses in terms of explaining the phenomenon or problem of study.
- **Using the model or theory as a labeling tool:** The selected model or theory could be used to help transform practical or lay terms into concepts used within a particular field of study or professional practice (Larsen & Adu, 2021). For instance, concepts associated with a particular model or theory can

Table 2.7 *The use of concepts, models and theories and their goals*

<i>Use</i>	<i>Goal</i>
<i>Explaining the study</i>	To make meaning of the topic or problem of study
<i>Representing the study</i>	To label relevant ideas in the study
<i>Justifying the study</i>	To establish the reason why it is important to conduct the study
<i>Informing the study</i>	To guide the conceptualization of the problem of study, the development of the research purpose and questions, the determination of a research approach, data collection techniques and data analysis strategies and/or the interpretation of findings
<i>Viewing the study</i>	To carry out a research inquiry from a particular perspective

Source: Adopted from Larsen and Adu (2021, p. 135).

be used to inform the variables you want to measure when conducting a quantitative study. They could also help with the operationalization of the concepts of interest and choosing the right instrument to measure them. In a qualitative study, when conducting content analysis, themes and codes could be generated from the selected model or themes. You can then use these themes and codes (i.e., code frame) to connect to relevant information extracted from the data (Larsen & Adu, 2021).

- **Using the model or theory as a justification tool:** The selected model or theory could be used to justify the decisions and actions taken in your study (Larsen & Adu, 2021). You could use it to support why:
 - It is important to focus on a specific phenomenon and/or address a problem
 - You are focusing on specific concepts or variables
 - You are using a qualitative, quantitative or mixed methods design
 - You are choosing a specific data collection and/or analysis strategy
- **Using the model or theory to inform the study:** The model or theory can be used as a guide, informing how you conceptualize the problem of study, determine and present the focus of the study, construct the research questions, state your hypothesis, determine the research method for the study, collect and analyze the data and present and interpret the findings (Larsen & Adu, 2021).
- **Using the model or theory as a lens:** As a researcher, you could take a certain perspective with the help of the selected model or theory and use the standpoint to conduct the study (Larsen & Adu, 2021).

Writing About the Conceptual/Theoretical Framework

After selecting the right model or theory, learning more about it and determining the role it will play in the study, the next step is to write about your framework. Your goal is to inform your readers about the model or theory, including its characteristics, associated assumptions and components or concepts. In addition, you are also expected to write about how the framework will be used in the study. In case you only have concepts for the development of your conceptual/theoretical framework, you could discuss them and their relationships and how they are going to be utilized in the study.

According to Adu (2020), there are five elements that a good conceptual/theoretical framework should have:

1. The meaning of the concept, model or theory being used to form the framework
2. The kind of phenomenon it represents, including its assumptions, strengths, limitations and delimitations (if any)
3. The connection between the concept, model or theory and what you are studying
4. Utilization of the framework
5. How the concept, model or theory will be used to help implement the framework

There are many ways of writing a conceptual/theoretical framework. The most important thing is to make sure you include all the elements as you creatively write about your framework. Also, at the initial stage of your study, see your conceptual/theoretical framework as a work in progress, continuously perfecting it as the need arises.

Develop an Illustration

Creating a visual representation of your conceptual/theoretical framework is not required but recommended. Design an illustration of your framework, translating the written information about your conceptual/theoretical framework into a visual representation. Having an illustration will help your readers to get a better understanding of the components (concepts) within the framework and the relationship between them. It will also help your readers to make a quick review of the structure of the framework.

There are a lot of concept or mind map tools/software available to create an illustration of your framework. You could even use the SmartArt function in Microsoft Word to create an illustration. Alternatively, you could use Cmap software to create your conceptual/theoretical framework illustration (see: <https://cmap.ihmc.us/>).

So, what should an illustration of a conceptual/theoretical framework look like? It should reflect what you have written about your framework. We see an illustration as a creative but simplified form of the text description of your framework.

Summary

One of the main ultimate goals of conducting research is to contribute to the body of knowledge in your field. However, you cannot adequately contribute if you are not aware of what has been related to your topic. The best way of having an in-depth knowledge of the current research, discoveries and conversations about your phenomenon of study is to conduct a literature review. The literature review process should be systematic, searching and selecting relevant literature, making meaning of them and writing a synthesis of what you found. Besides conducting a literature review, you are expected to create and/or write about your conceptual/theoretical framework. A framework can be seen as a bridge that connects your study to the existing body of knowledge (Larsen & Adu, 2021). It can also be seen as the foundation on which your study is built (Adu, 2020). As you work on your research proposal, it is important to search for potential theories, models and concepts that are related to your topic and determine the right one to help build your framework. Following the suggestions and strategies discussed above will help you to do an extensive literature review and create a relevant conceptual/theoretical framework.

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