

## Key Terms

- external validity
- funnel writing strategy
- heading
- internal validity
- three parallel ladders strategy

## Suggested Readings

- American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author.
- Badley, G. (2009). Academic writing as shaping and re-shaping. *Teaching in Higher Education*, 14(2), 209–219.
- Ferguson, T. (2009). The “write” skills and more: A thesis writing group for doctoral students. *Journal of Geography in Higher Education*, 33(2), 285–297.
- Samraj, B. (2008). A discourse analysis of master's theses across disciplines with a focus on introductions. *Journal of English for Academic Purposes*, 7, 55–67.
- Schwartz, B. M., Landrum, R. E., & Gurusu, R. A. R. (2012). *An easy guide to APA style*. Thousand Oaks, CA: Sage.

## Web Links

- APA Style <http://www.apastyle.org/>
- APA Formatting and Style Guide: The OWL at Purdue <http://owl.english.purdue.edu/owl/resource/560/01/>
- The Chicago Manual of Style Online <http://www.chicagomanualofstyle.org/home.html>
- The Elements of Style, William Strunk, Jr. <http://www.bartleby.com/141/>
- Modern Language Association (MLA) <http://www.mla.org/>

# 6

## How to Write Chapter Two, Literature Review

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It does not matter how slowly you go so long as you do not stop.

—Confucius

**B**ravo on getting through Chapter One of the thesis! This chapter will focus on how to write Chapter Two, Literature Review (also referred to as the Review of the Literature). The literature review is an important component of a thesis. While it does not describe your research or the methodology that you employed, it provides the reader a context for understanding why and how you conducted your study. Additionally, it communicates your knowledge of related research and of the conditions surrounding the justification for your research.

By now, you are knowledgeable of the literature related to your study. You have translated your knowledge into a statement of your research problem. In addition, you have had the advantage of examining research conducted and reported by other researchers with interests similar to yours and are aware of the gaps that still remain in the literature. The purpose of writing Chapter Two is to provide the reader with an overview of the *significant* research related to your research problem. In doing so, Chapter Two provides contextual background information for your research problem as well as justification and rationale for your research design.

For some researchers, this chapter is difficult to write. There are several reasons for this. First, it may be difficult to determine what literature to report and what to exclude. A common misconception is that the literature review is a comprehensive or chronological summary of every research article that has been written about the topic. If this were the case, you would never finish reading all the articles or have time to write about them! This can be a serious problem as you will have read an extensive amount of material and may feel that it is all important. Yet you cannot include it all and judgments will need to be made on what is most relevant to convey the significance of how your research fits with prior work. You should select only the research articles that are most relevant to your research problem or study. Another common misconception of the literature review is that it is simply a summary or description of research articles around a particular topic. Although you will need to write a summary of the selected research studies you reviewed, your task is to evaluate and critically analyze the research that has been conducted and connect it to your research study. I will discuss this in more depth in the research synthesis section. Unlike the term papers you wrote as an undergraduate, Chapter Two is not one of those assignments that you can do the night before it is due (and still get

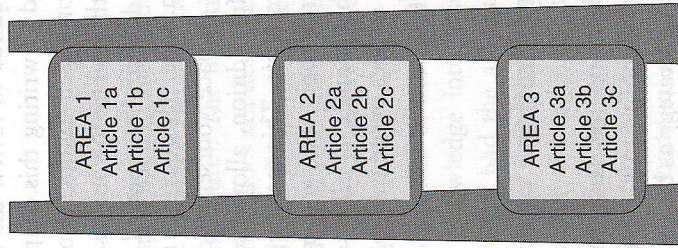
an A!). You can anticipate spending more time on this chapter than any of the others. The time required to review the literature will be extensive, as will be the time devoted to writing this chapter. You must research the literature, make decisions on which studies are most relevant, critique those studies, and describe how they relate to your research. In other words, your writing is specific to individual studies reported in the literature and not an overview of what has been done. This chapter tends to be the longest one in the thesis, so remember to pace yourself and use the chunking method (i.e., one bite at a time). In addition, allow yourself the time to read the research before you start to write. This may be the only chance you get to delve into a specific research topic, and you might actually find yourself enjoying the process! In this chapter, I will discuss how to organize your empirically based research articles, write each of the required sections, and synthesize a research article.

## Preparation and Organization

In Chapter Two, you will retain the same three areas related to your research problem that were identified in Chapter One. Thus, you will use the same three parallel ladders strategy as before. For Chapter One, the first ladder represented the *Statement of the Problem* section where you wrote about the problems within the three areas. The second ladder represented the *Background and Need* section where you discussed the existing solutions and interventions for the problems. For Chapter Two, we are going to expand the third ladder, which represents the body of the literature review. The three rungs in the ladder represent the same three areas from Chapter One. Each area will consist of at least three empirical research articles that are related to that area. Thus, you will need to have a total of nine empirical research articles to write Chapter Two (see Figure 6.1 for an expanded ladder of the three areas for the Literature Review). Check with your chairperson for the required amount of studies per section as it may be less or more.

The first step in preparing the literature review is to read and organize your empirical research articles. If you have not done so, you will need to group your research articles according to the three areas. A good strategy to use is skimming where you read the abstract, introduction, and conclusion, and skim through the rest of the article to get the main idea (Machi & McEvoy, 2012). This will indicate whether or not you have the most significant and relevant empirical research articles in each area. Remember that empirical research articles are those in which data are collected through quantitative, qualitative, or mixed methods. Keep





**Figure 6.1.** Expanded ladder of the three areas for the Literature Review.

in mind that you will not use position papers, literature syntheses, technical reports, and so on, to write Chapter Two (although this may depend on the preferences of your chairperson). Thus, you will need to retrieve articles from research journals (preferably refereed journals). Depending on your field, the research literature changes very quickly, so you want to get the most recently published articles. I would not recommend using an article that is more than five years old unless it was a seminal article. A **seminal article** is one that was significant to the topic (e.g., classic) or created a change in the field. If you are having difficulty finding recent research articles, try the following quick search strategies in relevant search engines or electronic databases: (a) Set a limit on the dates, (b) set a limit to scholarly journals, (c) search the table of contents in high-quality journals in your field, (d) search the reference lists of relevant articles, and (e) search for authors who have written extensively on your research problem. Finally, make an appointment with the reference librarian and ask your chairperson for some recommendations.

## Chapter Two Sections

After you have selected the first round of articles, now it is time to go back and read them more thoroughly to find the relationships between the research literature and your study. A good strategy to use at this stage is mapping. There are many different types of maps (e.g., concept, mind, subject tree, content), so you can pick one that best suits your needs. There are also different types of software programs and applications (e.g., Inspiration, MindNode Pro, iThoughts) that you can use to “draw” your thoughts into maps. The advantage of using a mapping strategy is that it helps you visually organize the research literature and see meaningful connections among the main ideas. Having a visual diagram also allows you to find gaps in your literature search. In other words, “Mapping allows you to organize the data collected into a pattern from which analysis can emerge” (Machi & McEvoy, 2012, p. 51).

Once you have reviewed and organized the research articles, you can start to outline and write the literature review. Chapter Two starts on a new page in the thesis. Chapter Two has three main sections: (a) introduction, (b) body of the review with research syntheses, and (c) summary. I will discuss what needs to be included and how to write each section. Please note that the research synthesis process below is an article-by-article synthesis within each area. Your chairperson may have additional expectations or prefer a different organizational format, so it is a good idea to check with her before you begin writing the body of the literature review. For example, your chairperson may want you to organize each section of the literature review around one specific topic or issue. Rather than discussing each study individually, you would synthesize a group of studies on one specific topic or issue and make references to specific studies to support your claims.

## Introduction

The introduction in Chapter Two has two purposes. The first purpose is to remind the reader about your research problem, and the second purpose is to inform the reader of the three research areas that will be addressed in the chapter. The first paragraph in the introduction is the opening. In this paragraph, revisit the broad problem and research problem from Chapter One. Remember, you want to refer to these problems in general terms. Do not write, “My research problem is . . .” Instead, briefly describe the broad problem (e.g., national) and then funnel to the research problem that your study is addressing. This paragraph may seem a bit redundant because it is. As you continue writing, you will notice that there will be a respectable level of redundancy throughout the thesis, especially at the beginning of each chapter.



However, the redundancy is purposeful rather than random. In this context, **purposeful redundancy** refers to intentionally reiterating main points about the research problem and study throughout the thesis. This serves two purposes. First, purposeful redundancy allows each chapter to “stand alone.” This means that a reader can begin reading the thesis at any chapter and understand the gist of the research problem and your study. Second, purposeful redundancy links the chapters together so that there is a seamless connection between them. This gives the writing fluidity and unity, and the reader is not left trying to fill in gaps. However, you want to avoid simply repeating verbatim what has already been written unless it is serving a strategic purpose. In other words, you do not want the reader to have a *déjà vu*, I’ve-read-this-before moment.

**Advance organizer.** The next paragraph in the introduction is the advance organizer. In this context, an **advance organizer** is an outline for the literature review and informs the reader of what will be addressed in the chapter. The advance organizer should be based on the three areas related to the research problem from Chapter One. In the advance organizer, explicitly state the areas that will be discussed in the body of the literature review. For example, here is an advance organizer for the three areas from Chapter One:

The literature review will address three areas of research related to the low performance of students with learning disabilities on statewide reading assessments. In the first section, research studies related to the impact of teachers providing students with test accommodations will be addressed. In the second section, there will be a discussion on the difficulties that students with learning disabilities have with academic language and complex vocabulary. Finally, the last section will focus on research-based strategies that have been effective in improving the reading comprehension of students with learning disabilities.

Here is an example template that you can use to write your advance organizer:

The literature review will address three areas related to (the research problem). The first section will address research related to (the first area’s problem/solution). The second section will focus on research studies about (the second area’s problem/solution). Finally, the third section will discuss research related to (the third area’s problem/solution).

Once you have the advance organizer, follow this outline and organize the text for the body of the review around each of the sections.

## Body of the Review

The body of the review is the heart of the literature review. This is where you will synthesize the research articles in each of the three areas related to your research problem. Remember to label each section with an appropriate level heading (see Chapter 10 for APA style). For example, my heading for the first section would be, *Test Accommodations for Students With Disabilities*. At the beginning of each section, write a brief description about the research area. Next provide a synthesis for each of the individual research studies. Within each synthesis inform the reader how the study is related to your research problem or study (i.e., supports what you are doing or how your study fills a gap). Although each article will be synthesized separately, it is important to connect the research articles within each area as well as establish the connections between the three areas.

**Research synthesis.** The synthesis of an empirical research article is part summary, part analysis, and part critique. In other words, your job is to summarize the study and apply your knowledge of research methods and quantitative/qualitative data analysis to critique the study. Providing a summary of the research article contributes to the body of information about your research problem. Providing a critical analysis of the research article strengthens the justification and rationale for your research study. Thus, you need to do both to synthesize the literature and relate it to your research problem. There are 10 basic components included in the research synthesis: (a) introduction, (b) purpose, (c) setting/sample, (d) intervention/issue, (e) procedures, (f) variables/measurement instruments, (g) data analysis, (h) results, (i) conclusions/implications, and (j) limitation/weaknesses (see Figure 6.2 for major components in a research synthesis). Although there are 10 separate parts, some of them may be only one to two sentences while others may be one to two paragraphs, depending on the complexity of the study. I will describe how to write each part with an example research synthesis adapted from a former student’s master’s thesis (Ho, 2006); there are additional sample research syntheses in Appendix G.

1. **Introduction:** Provide a brief introduction about the topic in the study. You should also define any new terms, if necessary. This information is typically found in the first section of the article where the authors discuss the findings from their literature review. For example,

Teachers often have difficulty promoting students’ knowledge and interpretation of historical events. This is especially true in diverse inclusive settings where students with and without disabilities are taught in the same classroom setting. One alternative method to teach history is



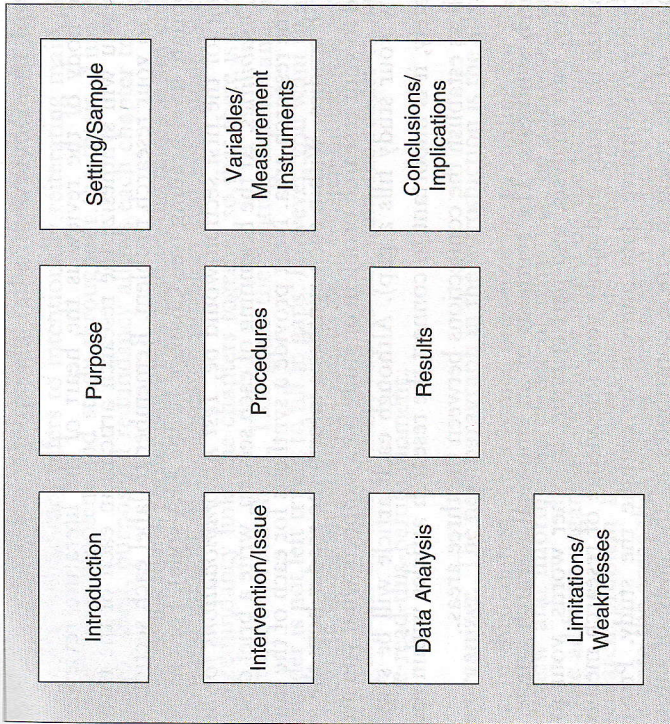


Figure 6.2. Major components of a research synthesis.

through project-based learning. This type of teaching technique uses a project-based activity to help students comprehend and apply their understanding of subject matter content.

2. **Purpose:** Briefly state the purpose of the study and reference the authors in the text with the year of publication (the full citation belongs in the references section; see Chapter 10 for APA style). This information is typically found in the first section of the article right before the *Methods* section. If you are lucky, the authors will explicitly state their purpose; other times, you will have to infer the purpose of the study from the given information. For example,

The purpose of the study was to investigate the effects of a curriculum model entitled supported project-based learning (SPBL) on students' historical knowledge, historical inquiry, and attitudes in inclusive fifth-grade classrooms (Ferretti, MacArthur, & Okolo, 2001).

3. **Setting/sample:** Identify the setting where the research was conducted, including the state or region. Then describe the participants of the study, including their demographic data (e.g., age, grade level,

disability, and ethnicity). In some cases, you will need to explain how the participants were selected. This is especially critical if the study used a survey or qualitative design because the sampling procedures are a critical component of the data collection process. This information is typically found in the *Methods* section of the article (sometimes there is a subheading for "Participants"). For example,

The study took place in two urban elementary schools in Delaware. The participants included three fifth-grade classrooms of 59 students without disabilities and 28 students identified with mild disabilities (24 were identified with learning disabilities). Sixty-nine percent of the sample group was Caucasian, 28% was African American, and 3% was Hispanic. Four classroom teachers (two general education and two special education) also participated in the study.

4. **Intervention/issue:** Describe the intervention that was implemented in the study. This is a brief description of *what* treatment the participants experienced including the materials that were used, professional development or lessons/strategies that were taught, and so on. This information is typically found in the *Methods* section of the article (sometimes there is a subheading for "Materials"). If the study did not involve an intervention, such as in a survey or qualitative study, discuss the issue or phenomenon that was explored. Here is an example of an intervention:

The students were given a task to investigate the experiences of miners, farmers, or Mormons during the westward expansion period in U.S. history to determine whether or not the group should have gone west. They were first shown a video of an emigrant group during westward expansion to pique interest and to build background knowledge. The students were then given primary sources consisting of diaries, journals, photographs, letters, and drawings to read and interpret and were assigned to put together a multimedia technology presentation of the results of their investigation. As part of the intervention, the students were taught lessons on how to analyze and interpret historical evidence. They were also given questions that they could ask each other to help with the examination of the evidence. Finally, the students were given a narrative framework to organize their information.

5. **Procedures:** Describe the procedures that were used to conduct the study. This is a brief description of *how* the treatment was administered including the length of the intervention, how participants were put into groups, and under what conditions the intervention was implemented. If the study did not involve an intervention, describe other research procedures that may have been used. This information is typically found in the *Methods* section of the article (sometimes there is a subheading for "Procedures"). For example,



The intervention lasted for eight weeks over 25 to 29 class periods. The history unit consisted of 14 lessons. The students worked in heterogeneous mixed-ability cooperative groups. As part of the intervention, the students were taught a strategy to help facilitate the analysis, interpretation, and communication of the information they gathered. Each student was given a primary source that he would read aloud, describe orally and in writing, discuss within his group, fit into the narrative framework, and then transfer to the computer. Once the groups finished their research, they worked on completing the presentation that consisted of both written text and pictures over eight class sessions.

6. **Variables/measurement instruments:** Describe the variables that were measured and how the data were collected. This is a brief description of the type of data the researcher collected and the types of measurement instruments used to collect the data. In a quantitative study, report the independent and dependent variables and describe the measurement instruments such as surveys, tests, and so on. In a qualitative study, report how the researcher collected data such as observations, field notes, interviews, and so forth. This information is typically found in the *Data Collection* or *Measurement Instruments* sections of the article. For example,

There were four dependent variables that were measured in this study: content knowledge, historical knowledge, historical inquiry, and students' attitudes. The content knowledge of the unit was measured by a 16-item multiple-choice test on westward expansion (pretest and posttest). To measure historical knowledge and inquiry, 20 interview questions were administered before and after completion of the unit to 18 students with disabilities and 27 students without disabilities. Scoring guidelines were developed for the interview questions, and interrater reliability on the students' responses was high. The fourth measured variable was students' attitudes including self-efficacy, intrinsic motivation, and attitudes toward cooperative learning and collaborating with peers. This variable was measured through an attitude scale. No information was given about the structure, format, or scoring of the attitude scale.

7. **Data analysis:** Explain how the data were analyzed. For a quantitative study, this can include the type of statistics or statistical tests that were used. For a qualitative study, this can include the procedures for transcription (for interviews), organization of field notes (for observations), and the methods used for data coding. **Data coding** is a data analysis process used in qualitative research to categorize and label the major themes. This information is typically found in the *Methods* section of the article (sometimes there is a subheading for "Data Analysis") or in the *Results* section. For example,

After the intervention was completed, several statistical tests were used to analyze the data. A 2 x 2 repeated measures analysis of variance (ANOVA) and a univariate ANOVA test were conducted to determine students' mean gains from pretest to posttest and if there were any statistically significant differences between students with disabilities and students without disabilities. Differences from pre to posttest on the attitude scale were analyzed through a MANOVA test.

8. **Results:** Discuss the results of the study. For a quantitative study, this would include numerical data such as percentage scores, mean scores, or results from statistical tests (e.g., *t* tests). Remember to report the results for each of the variables from the measurement instruments that are relevant to your research problem or study. For qualitative data, report the major themes and significant quotes from the participants that support the major themes (remember to include page numbers for quotes). This information is typically found in the *Results* section of the article. For example,

The results indicated that students in both groups improved their content scores. However, the students without disabilities scored significantly higher on the posttest than the students with disabilities. The results were similar for the historical content and historical inquiry questions. On the attitude scale, both groups improved slightly on the self-efficacy portion, but the students without disabilities made greater gains than the students with disabilities.

9. **Conclusions/implications:** Discuss the main conclusions and implications based on the results. This information is typically found in the *Discussion* section of the article. However, it is important that you make your own interpretations about the conclusions based on the actual results as authors have a tendency to overstate their conclusions beyond the results. For the implications part, this is where you should make an explicit connection to your research study. Basically, answer the "So what?" question and discuss why these results are important for your research problem or study. For example,

Several conclusions can be made about the students' learning in response to the SPBL model. First, both students with and without disabilities improved significantly on the content test and interview questions based on historical knowledge and historical inquiry. After the intervention, students with disabilities were able to comprehend the concept of bias and why the interpretations of historians may differ. This provides support for both general and special education teachers to implement a project-based curriculum to improve their students' understanding of social studies content, especially in inclusive settings. However, some of the mean gains on the test and interview questions were relatively small, and the



students with disabilities scored significantly below the students without disabilities on all measures. These results indicate that these students may need explicit instruction on the core content in addition to the project-based curriculum. Additionally, the researchers noted the challenges that general classroom teachers faced with the multimedia component, which questions the feasibility of this type of model in a classroom setting with limited resources and technological support. For future research in this area, providing an additional component using explicit instruction on the narrative framework with less technological demands might strengthen the intervention for teachers and students with disabilities.

10. **Limitations/weaknesses:** Address limitations or weaknesses of the study. This information is typically found in the *Discussion* section of the article (sometimes there is a subheading for "Limitations"). Similar to the *Conclusions* section, it is important for you to form your own criticisms of the study's design, methods, results, and so on, rather than relying on the researcher's stated limitations. Just as researchers have a tendency to overstate their conclusions, they will also often understate the limitations and weaknesses of their study. The limitations and weaknesses section is another area where you should make an explicit connection to your research study. Basically, identify the limitations of the study and discuss how these weaknesses or gaps were addressed in your study. For example,

There were several limitations and weaknesses in this study that the current study addressed. First, there was an unequal level of participation from the students in the cooperative groups. The students with disabilities struggled to decode words while the students without disabilities quickly read through books on westward expansion. This could have been a decisive factor in their lower test scores and interview questions. In this study, the students' participation levels were more equal because the text was read aloud. Another limitation was the consistency of each of the instructional periods due to students with disabilities entering/exiting the class for supplemental services. In this study, the instructional time and practice was controlled to ensure that all students received comparable time. Another limitation of the study was some students lacked the background knowledge that was necessary to understand the content. In this study, the researcher incorporated activities that personalized the events for students and provided explicit instruction on necessary background knowledge.

The research synthesis process that was described is one model to summarize, analyze, and critique each of the research studies related to the three areas of your research problem. If you choose this format, be sure to include transition phrases (*segues*) between the research syntheses and the three areas so that they are seamlessly connected.

**Section summary.** After you have synthesized the three articles in each area, provide a summary paragraph for the section. The purpose of this paragraph is to summarize and connect the main points from the three studies. The section summary should also highlight the main limitations of the three articles. For example,

The research literature indicates that students with learning disabilities continue to struggle with instruction that is delivered in a traditional lecture format. The three research articles that were evaluated in this section provide support for using different types of instructional techniques, particularly project-based and authentic learning experiences that involve technology and cooperative groups. The students with disabilities in these studies who were taught history using these teaching techniques benefited from the instruction, as evidenced by their increase in test scores and attitudes. However, there were several weaknesses to the studies that limit their generalizability to other settings and populations. These limitations included small sample sizes and the limited age groups. Since all the studies were conducted with middle school students, it is unclear whether these results would be transferred to high school students, which is the sample group of this current study. Additionally, other limitations included the inconsistency of the instruction due to behavior or attendance of the students, which could have been a factor that affected the results. These weaknesses were controlled for in the current study.

## Chapter Summary

The last section in Chapter Two is the *Summary*. The *Summary* should have its own level heading. In this section, summarize the key points from the three areas of research as well as the limitations. For example,

To ensure that students with disabilities succeed, it is imperative that these students do not fall further behind in proficiency levels, especially in core content areas such as history. The current materials and traditional lecture methods of instruction in today's high schools seem to put students with disabilities at a disadvantage. Students with disabilities have a particularly difficult time comprehending expository texts, which is the dominant form used in history textbooks and curriculum. The research studies reviewed in this chapter indicated that students with disabilities benefit from direct and explicit instruction in different types of expository texts to assist in their comprehension of their textbooks. Additionally, researchers found that using and activating students' prior knowledge helped in their reading comprehension, memorization, and recall of information and text. Another area that has been studied and shown to be beneficial for students' comprehension was using different types of instructional techniques, particularly project-based and experiential learning strategies that involved technology and cooperative groups. Although these studies showed beneficial methods for the students involved, the studies used small sample



sizes and a narrow range of student ages, particularly middle school ages, which made it difficult to generalize across the population. Additionally, some of the studies did not include students with disabilities in their sample groups. More research with a more diverse sample of students at different grade levels is needed to determine if these strategies would be successful across student populations. This current study contributed to the existing research literature by measuring the effects of a project-based experiential learning strategy on the comprehension of historical content for high school students with disabilities.

In essence, the *Summary* provides a picture of the most pertinent research in the literature related to your research problem as well as a rationale for how your study contributes to the literature. Thus, you should conclude the summary with a brief statement of how the literature supports what you are addressing in your study. Writing a strong summary at the end of the chapter is vital because you want to leave a lasting impression on the reader and convince her that your study is absolutely essential.

## Summary

Chapter Two is a critical chapter in the thesis because it provides an overview of the research literature related to your problem and study. In doing so, you show the reader that you are knowledgeable about the existing research and that your study fills a much-needed gap. In synthesizing the empirical research articles, you have provided both a summary of the studies as well as a critique (which provides a rationale for your study). In the next chapter, I will discuss how to write Chapter Three, Methods, for your thesis. Here is a summary of the most critical points from Chapter 6:

- The purpose of writing Chapter Two is to provide the reader with an overview of the *significant* research related to your research problem.
- A common misconception is that the literature review is a comprehensive or chronological summary of every research article that has been written about the topic.
- A required skill to write Chapter Two is to be able to evaluate and critically analyze the research that has been conducted and connect it to your research study.
- In Chapter Two, you will retain the same three areas related to your research problem that were identified in Chapter One.
- You will need to have a total of at least nine empirical research articles to write Chapter Two.
- Chapter Two has three main sections: (a) introduction, (b) body of the review with research syntheses, and (c) summary.

- Purposeful redundancy allows each chapter to “stand alone” and links the chapters together so that there is a seamless connection between them.
- To synthesize an empirical research article, you will need to summarize the study and apply your knowledge of research methods and qualitative/quantitative data analysis to critique it.
- Make your own interpretations about the conclusions based on the actual results as authors have a tendency to overstate their conclusions beyond the results.
- Form your own criticisms of the study’s design, methods, results, and so on, rather than relying on the researcher’s comments.

## Resources

### Common Obstacles and Practical Solutions

1. A common obstacle that students face at this stage is selecting the articles to include in Chapter Two. Words that come to mind are, “I have over 30 articles!” Although it seemed like a good idea at the time to collect as many as possible, having 30 research articles for Chapter Two is 20 too many. Remember that the purpose of the literature review is to synthesize the most critical and relevant articles for your research topic; the purpose is not to write the historical chronicle of your research topic. With that said, pick only the research articles that fit the three related areas and can support, justify, or reveal a gap related to your research study.
2. Another common obstacle faced by students is synthesizing all the research articles. Words that come to mind are, “I don’t have time to read and critique all these articles!” If you took my advice in the first tip above, you should only have to synthesize between nine and 12 articles. This is where the chunking method is critical. Plan a schedule where you tackle one article per day (or one per thesis session). At the first session, read the article carefully and highlight the 10 main components (see Figure 6.2). Make notes on the article where you can critique the study’s design, methods, results, and conclusions/implications and also note how the article relates to your study. At the next session, use your notes to summarize and synthesize the article. Take a much-deserved break and start the next article.

### Reflection/Discussion Questions

Before you write Chapter Two, it is important to identify the common thread that will be carried over from Chapter One so that the thesis



appears to be seamless. Chapter Two also requires you to extract your prior knowledge of research methods as you synthesize the articles. The following reflection/discussion questions will help guide you through these two processes.

1. What is purposeful redundancy? What is the goal of using purposeful redundancy in the thesis? How is it different from repetition? Give examples of how and where purposeful redundancy would be appropriate to use in Chapter Two.
2. What is a research synthesis? How does a research synthesis differ from a summary? Use an empirical research article and locate/describe the parts that should be included in the research synthesis.

### Try It Exercises

The following exercises are designed to help you write Chapter Two. In Activity One, you will identify the empirically based articles that are related to your three areas. In Activity Two, you will write the introduction and advance organizer paragraphs for Chapter Two. In Activity Three, you will synthesize one of the research articles for Chapter Two.

1. Activity One: For this activity, focus on the research literature related to your research problem and study.
  - List the three areas from Chapter One that are related to your research problem or study.
  - For each area, write the full citation of three empirical research articles that can be included in Chapter Two (you should have a total of at least nine articles).
2. Activity Two: For this activity, focus on your research problem and study and the three related areas.
  - Write an introduction paragraph to Chapter Two, Literature Review. Remember to use purposeful redundancy when you address the broad issues and then funnel to your specific research problem.
  - Write an advance organizer for Chapter Two, Literature Review. Remember to outline the three areas of research that will be discussed. You can use the following template:

The literature review will address three areas related to (the research problem). The first section will address research related to (the first area's problem/solution). The second section will focus on research studies about (the second area's problem/solution). Finally, the third section will discuss research related to (the third area's problem/solution).

3. Activity Three: For this activity, focus on one of the empirical research articles from the three related areas.

- Write a research synthesis for one article for the literature review. Remember to include the following parts: (a) introduction, (b) purpose, (c) setting/sample, (d) intervention/issue, (e) procedures, (f) variables/measurement instruments, (g) data analysis, (h) results, (i) conclusions/implications, and (j) limitations/weaknesses. Then, submit the synthesis to your chairperson for review to make sure you are on the right track!

### Key Terms

- advance organizer
- data coding
- purposeful redundancy
- seminal article

### Suggested Readings

- Fenton, P. (2002). *Literature reviews and thesis structure: For master's and doctoral students*. Unpublished manuscript, Massey University, Auckland, New Zealand
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### Web Links

- Garbl's Writing Center <http://garbl.home.comcast.net/~garbl/>
- Guide to Grammar and Writing <http://grammar.ccc.commnet.edu/grammar/>
- Mendeley (free reference manager and academic social network) <http://www.mendeley.com/>
- Sample APA literature review [http://owl.english.purdue.edu/media/pdf/20070515025950\\_667.pdf](http://owl.english.purdue.edu/media/pdf/20070515025950_667.pdf)
- Zotero (free and open-source reference management software to manage bibliographic data and related research materials) <http://www.zotero.org/>