Chapter Seven

Exercises for Writing Introductions, Purpose Statements, or Specific Aims Sections

Summary

> *Put the argument into a concrete shape, into an image, some hard phrase, round and solid as a ball, which they [the readers] can see and handle and carry home with them, and the cause is half won.*
>
> Ralph Waldo Emerson (1803–1882)

Think About It . . .

Writing introductions to journal articles or book chapters, along with purpose statements or specific aims sections in grant proposals,[1] usually scares academic writers as much as brain surgery. Patients can count on anesthesia to get them through brain surgery; authors writing introductions aren't quite so lucky. The reason for the apprehension lies in the inherent difficulty of writing these sections. The difficulty, in turn, stems from the multiple expectations embodied in an introduction: It must engage the reader quickly; it must clearly lay out the road map for the reader's journey; it must state the purpose unambiguously; it must provide enough historical background on the topic. Composing text to achieve *all* these goals simultaneously, while adhering to strict page or word limits, may seem like a mammoth task—and, well . . . I hate to say it, but it is! It's a lot to ask of a writer! Those who are less experienced often balk at the challenge or desperately wish there was such a thing as writing anesthesia, preferably in pill form.

Fear of tackling introductions is why most scholars recommend that you begin with the methods section, leaving the introduction for last. I don't recommend this strategy, unless you are so completely paralyzed by fear, you're not writing anything. Better to be working on the methods section than not working at all. Yet beginning your piece by rough-drafting the introduction has several advantages, which I explore below.

Before we examine these advantages, however, a quick side note: To ease communication throughout this segment, I'm going to assume you are writing either journal articles for peer-reviewed journals in the social and behavioral sciences or grant proposals for federal funding agencies. Even though most recommendations and exercises are equally applicable to other forms of academic writing, such as term papers, book chapters, reports, or books, I will employ language referring to articles and grants.

If you begin drafting your piece with the introduction, you will have the chance to capture your current thoughts and to note their changes over time. It's important to start the capturing process *early* so your ideas can

mature. Begin, then, by writing down all your thoughts for the introduction without worrying whether the ideas are good or bad, coherent or incoherent, accurate or inaccurate. As your writing progresses, many ideas placed in the intro section will later be moved to the discussion or methods, but it is important to capture them *somewhere, right now.* At this point, however, don't worry about producing a final, polished introduction. Simply begin capturing the ideas of how to "enter" into your topic.

Another advantage you gain by starting with your introduction is this: You will have a better idea of what to present or discuss in the other sections. In the introduction you'll need to frame your piece. In other words, you'll need to tell your reader what to expect—what is your purpose and what you will argue for. This framework will become a personal blueprint for writing the methods, results, and discussion. In those sections you will write *only* about the elements that fulfill the purpose you stated in the introduction, the elements that fit your framework, and you will have a much clearer idea of *what* to write.

Research Shows . . .

In 2002, Linda J. Sax and her colleagues published a study examining research productivity among a sample of 8,544 full-time teaching faculty from 57 universities in the United States. The data were part of the 1998–1999 Higher Education Research Institute Faculty Survey. The authors assessed the role of "marriage, children, and aging parents" as potential influences on productivity after controlling for other factors.

Among their findings were these:

a. While the gender gap in productivity appears to be closing, it "remains unchanged among highly productive faculty (those producing five or more publications within a 2-year period)" (p. 428): In research universities, 31.1% of men had five or more publications within the 2-year data period, compared with 20.0% of women.

b. Bivariate statistical analysis (uncontrolled) showed "being married or with a partner is associated with higher publication rates for men" (p. 430).

c. In statistically controlled analyses (controlling for rank, salary, research orientation), family-related variables made only a tiny contribution, "suggesting that once key demographic, institutional, and professional variables have been controlled, family-related factors have little influence on faculty research productivity" (p. 430).

If you retrofit the introduction to what you presented in your paper (i.e., if you write the introduction *after* drafting the methods and results), you may find it hard to connect all the elements described in your presentation. Some elements may not connect with others easily, may take the reader on tangents, or may be difficult to combine into a single, coherent point. It's

much easier to bake a cake if you use a recipe that calls for certain ingredients and only those. It's much harder to scatter various ingredients on your kitchen counter, then ask yourself, "Now, let's see . . . can I make a cake using some of these?" You may, in fact, succeed, but you also run a huge risk of failing! Better to start with a recipe to guide the baking. Better to have at least a draft of an introduction to set parameters for the remainder of the paper.

In this chapter I will not go into much detail on *how* to write or organize an introduction or specific aims section. To learn *how,* you can refer to many available resources (some of which I've listed in the Appendix). I provide, instead, several exercises to help you *practice* writing introductions and purpose statements/specific aims. To help you a bit with *how* to write an introduction, I have posted a journal-article writing template on the book's website (at www.sagepub.com/goodson), which you can use more or less as a fill-in-the-blank form. The template will remind you to include certain elements from your research you may not have thought about writing. It is merely a tool to help you think; it's *not intended* to be an exhaustive, comprehensive, all-encompassing model. I do realize that for some fields of study the template is not appropriate because those fields' research reports follow a different structure. Even if you belong to an area of study that does not use written reports formatted in this structure, the template may help you consider a few things you should always include in any introduction section. It serves as a useful checklist, if nothing else. Take a look!

EXERCISE 29—MAP

TIME NEEDED: 15 minutes x session

MATERIALS NEEDED: Timer; blank sheets of paper and colored pens/pencils, or mind-mapping software

In this exercise you will practice mind mapping. Mind mapping has become a popular tool since Tony Buzan developed it in the 1970s (About ThinkBuzan, 2011). It helps you think out loud and draw your thoughts. Mapping generates a graph, a one-page, at-a-glance picture of the many connections your mind makes while thinking about a topic.

If you are the kind of author who likes to outline, you will probably enjoy using a mind map, too. Listing ideas in a linear format—one word or phrase after the other—as we do when we outline, doesn't provide an at-a-glance big picture of your text. A mind map, on the other hand, keeps the whole image in sight—showing all the dimensions and connections among them, along with their details.

Mind mapping is a fabulous instrument for generating new writing ideas, for structuring various writing pieces, as well as for capturing all the associations one makes while thinking through a writing project. Mind mapping has, in fact, become a widely used tool for many academic-related tasks such as improving students' retention of learned material; facilitating creativity; teaching or learning different concepts; planning and organizing; presenting ideas, projects, and reports; and solving problems in teams (see "Why Mind Mapping Works," 2011). It is especially useful for writing introductions, or for thinking through the structure of an entire paper or grant proposal.

You can draw a mind map using simple tools: paper (usually a blank sheet, in landscape position, so you have more room to draw) and pens, pencils, or colored pens and markers. You can also rely on available software packages designed to perform more complex tasks, such as attaching a PDF file to the ideas in your map or sharing electronic maps among members in a writing team. If you search the Internet for available software packages and strategies for developing mind maps, you will unearth a range of applications and information—from the most simple to the most sophisticated. (Please note: I could not do justice to the topic if I attempted to teach you in this book how to mind map. I recommend, therefore, that you find tools to learn about the process on your own. The resource list in the Appendix offers a few citations and places on the Internet you can check out to start.)

This week's exercise, then, consists of mind mapping your introduction.

1. Spend one practice session learning how to draw a mind map (even if you use only pencil and paper—the way I develop most of my own mind maps). It will take just a few minutes to learn. Use the first practice session exclusively for learning how to use the tool. I've included two examples of mind maps in this chapter (Figures 7.1 and 7.2). Studying these examples, you will have an idea of how to draw your own mind maps.
2. In the next practice session, mind map your introduction or specific aims section. (Note: You also may find mind mapping useful, later, for brainstorming each section in your paper or proposal. You may also try developing a mind map for the entire paper so you can keep the big picture in mind while you work on each individual section.)
3. Don't worry about completing the mind map during the first session. The idea is to allow the map to mature, over a few days, before actually writing the text. Keep adding to your map during each practice session this week.
4. As you're building your mind map, there will come a point when you sense you have enough to begin writing. When you reach that point, start developing the text using your mind map as a guide. But remember: Your map is never set in stone or definitive. As you write, you may find yourself making new associations, thinking about other aspects of the text you hadn't thought about previously. Capture those aspects in writing, and, later, add them to your mind map if you want to keep the maps as documents of your thought process.

Example

Below are two examples of mind maps I created. The messy-looking, hand-drawn mind map (Figure 7.1) reflects my initial thinking about a paper I wished to write regarding health education faculty's roles and expectations when working at universities with high research emphasis (formerly known as Research 1 institutions). The second, neater-looking map (Figure 7.2) represents a first attempt to capture my thinking related to a health education ethics course I was developing. The map is not even close to being complete or exhaustive; it merely captures my initial thoughts about how the course *might* be structured. The course's final format contained many of the elements in this graph, but some never made it into the last version (for instance, I omitted the "brief history of health education" module).

As you can see in these examples, there isn't a single right format for drawing mind maps, yet the principle remains the same for each: Capture as

a snapshot all the dimensions of a given topic in their dynamic relationships. I always stand in awe of how mind maps—due to their snapshot quality—allow me easily to recall both the big picture and the details of a project I'm working on, even when I step away from it for some time. Give it a try!

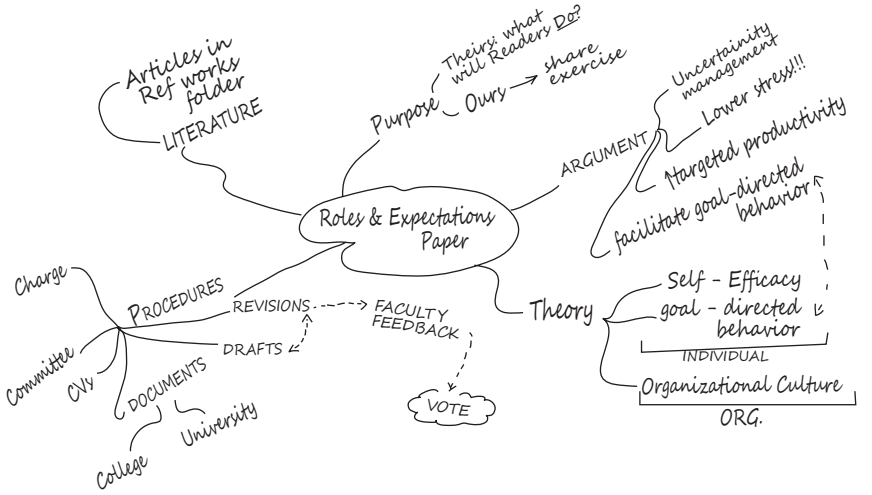

Figure 7.1 Example of Hand-Drawn Mind Map

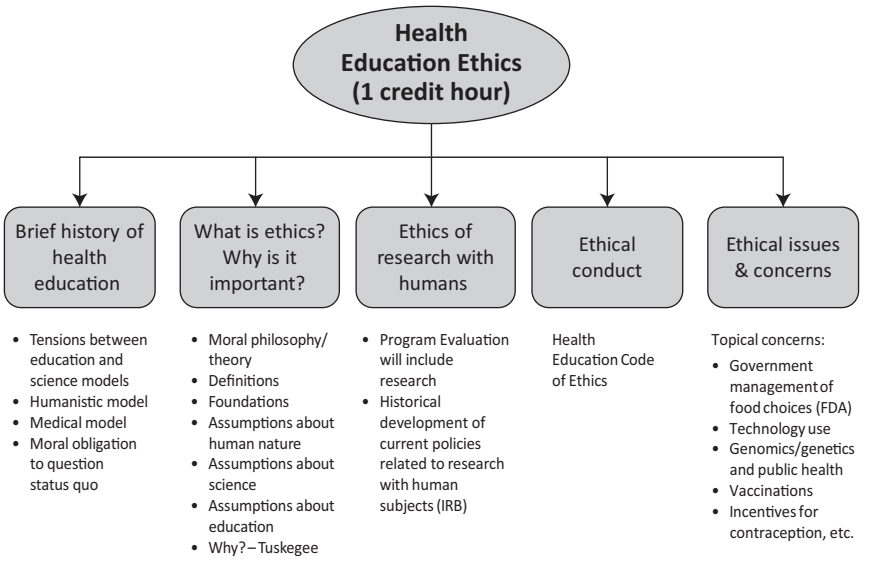

Figure 7.2 Example of Mind Map Drawn in PowerPoint

EXERCISE 30—DUMP

TIME NEEDED: 15 minutes x session

MATERIALS NEEDED: Timer; your mind map

For this exercise, do the following in each practice session during the week:

1. Open a clean word processor file (or get a blank sheet of paper) and write "Introduction" or "Specific Aims" at the top. List several useful subheadings—you may have developed these in your mind map last week—representing the various pieces or segments in your introduction.

2. Use these subheadings as you would use the drawers in a file cabinet. Start by dumping words into these drawers. Yes, dump: as if you had a box full of junk and you were going to pour it all into those drawers for later sorting. Dump all the words and ideas twirling around in your mind: the well-formed, mature ones; the potentially good, embryonic ones; as well as those for which you have no clue whether they might be good or bad, useful or trashcan-worthy. Dump potential connections you might make and even the questions you have about your yet-to-be-written article. Using your timer, dump for 15 minutes nonstop. The only rule here is this: Do not stop to think. Write as fast as you can everything that comes to mind about the article, including any thoughts about the findings and results. Write in your native language if you don't recall the proper words in English. Just make sure you address everything you originally placed in your mind map—everything you still find relevant, that is. Don't bother about correct spelling, punctuation, or even complete thoughts. Write notes to yourself as you dump, question yourself, talk to yourself as you go (see the example).

   As you dump, you dive into your paper, and, over time, as your brain feeds on the ideas you're capturing, it massages and shapes the information for you. A common practice of mine is to begin these dumping sessions by writing, "*I have no clue how I want to structure this article or which perspective I want to emphasize here.*" I may even write thoughts similar to these several days in a row, until, all of a sudden, there's a moment when I know exactly how to proceed (it surely *seems* as though it's all of a sudden, but it results from sitting down with the topic several times).

3. Don't forget, the introduction is the place in your report where you want to talk about

   - the PURPOSE of the manuscript/grant (WHAT?),
   - the RATIONALE for what you propose to do (WHY?),
   - the BACKGROUND for your purpose (WHEN? WHO?), and
   - the THEORETICAL support for your purpose (HOW?).

4. Close your file after the practice session ends.
5. When you return to practice, organize your mess, moving ideas that more properly belong in other drawers, throwing out apparently useless ideas, adding bits and pieces you're just now remembering.

   Caution! Never throw away any writing when you're still drafting a piece. Create a TRASH file inside the folder containing your project and copy and paste into that file everything that, at this moment, you consider garbage. If you're writing by hand, label a hanging or manila folder "Trash" and file the page with the discarded ideas in this folder. Later on in your project you may need to use some of those trashed ideas.
6. Spend each writing session this week focusing on the introduction: dumping and organizing, dumping and cleaning. Eventually, you'll be spending less time dumping and more time editing. You will see your introduction begin to mature, the ideas begin to take shape, and the desired direction for your text begin to materialize. Give it a try!

Example

Here's an example from my own writing. I copied and pasted this introduction, verbatim, from my writing journal. Notice the spelling and punctuation mistakes, the rough transitions and lack of continuity, as well as the notes to myself as I tried to capture what was on my mind about the article:

> This study reports on findings from a state-wide evaluation of abstinence-only-until-marriage programs implemented in the state of Texas between XXX and XXX (years). Programs evaluated in this study received Title V funding for their programs. Title V funding entails (explain what Title V is—maybe look at the book I'm reviewing for JSR—they may have a nice, concise explanation, so I don't repeate what I've said in previous papers about Title V. Need also to explain what AUM programming is, and what it's main purpose/focus is all about. Perhaps mention that programs aim at changing ytouth's perceived norms about abstinence being "cool" given that one of our findings was related to dosage and perceptions of peers (the uncontrolled finding).

Tip for ESL Writers

Use mind mapping to diagram the introduction of other authors' articles that you judge to be well written. To do this, map all the headings and subheadings you find in that introduction and its main points/arguments. This list becomes the skeleton of that article's introduction. Compare various skeletons of introductions. This will give you ideas for generating the structure for your own.

EXERCISE 31—CRAFT THE PURPOSE STATEMENT

TIME NEEDED: 10 minutes x session

MATERIALS NEEDED: Timer; the drafts you generated last week for introduction or specific aims sections

While you dumped and organized your introduction last week, you may have started to draft a purpose statement of sorts. This week, you'll spend time zooming in on that purpose or the specific aims portion of your text.

A clearly written purpose statement is the soul of a paper or proposal; it is the point toward which everything converges in the writing. If well written, the purpose statement becomes the climax of your introduction drama: the vertex, the focal point in your entire report.

Have you ever noticed how well-written novels keep readers on the edge of their seats? The purpose statement in your manuscripts represents your chance to create such a cliffhanger moment, to bring your readers to the edge of their seats and leave them there, balancing for dear life, while you carefully unveil the answers to all the intractable mysteries in the remainder of your report. Okay . . . I exaggerated a bit, but some of the best academic writing I have read manages to do precisely that: present the purpose of the piece in such a way, I can't help myself; I *have to read* the paper to learn more about it!

This exercise will allow you to spend some time practicing writing your purpose statement. With practice, you will be able to write those powerful, cliffhanger statements that make your reader *beg* to read the remainder of your text.

1. In the first practice session (10 minutes), write as many variations as you can of the answer to this question: *What is the purpose of this paper/report/proposal?* Remember that, most often, the purpose is to *do* something: *answer* a question, *test* a hypothesis, *compare* findings across studies, *argue* for a better solution, *examine* a problem in depth, or *analyze* data in a new way.

   As much as possible, keep your purpose statements *ACTIVE*. In other words, always use verbs to describe your purpose, not nouns.

Example

DO write something like this:

> The purpose of this paper is to *argue* for an alternative approach to *analyzing* data on adolescent sexual activity. We *present* four arguments

> supporting Jones's (2005) proposal to analyze such data from a dynamic systems perspective, instead of applying an individual-level approach.

DO NOT write something like this:

> A proposal to analyze adolescent sexual activity data from a dynamic systems perspective is offered by Jones (2005). Jones's proposal is against applying individual-level analyses to these data. In this paper we are in agreement with Jones's position and rationale.

Notice that in the second example it is never quite clear *what* the authors will *do* in the text. None of the verbs are *action* verbs, so the reader remains uncertain of what will be presented.

As a side note: I have a colleague who reviews for several professional journals in sociology. He once told me he will refuse to review a manuscript if he cannot quickly find the sentence "*The purpose of this paper is . . .*" in its introduction. Although I do not refuse to review based on this criterion, when I review my students' papers or articles for a journal, I also look for that purpose statement, hoping to find it rather quickly either in the very beginning or at the end of the introduction section. If the statement or an equivalent is missing, I have an important clue: The manuscript might have significant problems related to clarity and organization.

2. As you brainstorm various ways to word your purpose statement, consider writing the purpose as a question, not as a statement.

INSTEAD OF . . .

> The purpose of this paper is to argue for an alternative approach to *analyzing* data on adolescent sexual activity. We present four arguments supporting Jones's (2005) proposal to analyze such data from a dynamic systems perspective, instead of applying an individual-level approach.

TRY SOMETHING LIKE . . .

> Would analyzing data on adolescent sexual activity from a dynamic systems approach provide an advantage over an individual-level analysis? Because we believe (with Jones, 2005) there is merit to this alternative, we present four distinct arguments supporting a dynamic systems perspective for analyzing data on adolescent sexual activity.

Did you notice I began the example above with a question? Have you also noticed that most good fiction writing (the type of writing we *enjoy* reading)

centers on questions? Roy Peter Clark (2006) reiterates this point in *Writing Tools: 50 Essential Strategies for Every Writer:*

> Who done it? Guilty or not guilty? Who will win the race? Which man will she marry? Will the hero escape or die trying? Will the body be found? Good questions drive good stories. (p. 150)

And good questions can drive good academic writing as well. If you want to hook readers and make them *want* to read your paper, use questions. I even recommend using a pointed question to begin an article: First sentence. Right there. For example,

INSTEAD OF BEGINNING AN INTRODUCTION WITH THIS:

> Childhood obesity has become an epidemic in recent years; many scholars would argue that the epidemic has spread worldwide.

TRY BEGINNING WITH THIS:

> Has childhood obesity become a *pandemic* in recent years?

There's nothing wrong with the first example; it's just boring and repeats information most readers who are professionals in health promotion or nutrition already know. An opening sentence such as that one does *not* make me really interested in what else you might have to say, even if it ends up being intriguing (Casagrande, 2010).

By offering your readers a question, you immediately engage their thinking about the issue even if they are already familiar with the topic. A question invites readers to think and engage in a conversation with you. You've brought them to the edge of the cliff: They will not want to put your article down until the question is answered. You've hooked them into reading your paper.

3. At this stage, do not worry about editing your purpose statements; just write them in as many different ways as you can. End your practice session after the 10 minutes are up. Return to these statements tomorrow. Then, if necessary, dump some more. You'll think of other ways to craft the statement during the day, for sure!
4. During your subsequent practice sessions, tweak your previous statements, and add, edit, and play with them. Generate more, if you're still not satisfied with what you've done so far. But keep generating/editing in small chunks of time.

By allowing yourself to spend 10 minutes each session working on your purpose statement or specific aims, after six sessions you will have devoted at least 1 whole hour to working exclusively with the soul of your paper or proposal. And as the statement matures, you will also gain clarity on how best to frame the introduction, which aspects to emphasize, which lens to use. Keep referring back to your original mind map. At some point, however, you will see the text you've begun to write come alive: It will grow around that original mind-map skeleton and become stronger and richer. Eventually, you will no longer need your mind map.

After a week's practice, you should have a rather decent final purpose statement for your manuscript or proposal. Write the statement in large, bold letters. Print it. Post it on your writing station (next to your computer screen or on a wall; keep it in sight at all times). The purpose statement represents your most important guidepost, the most relevant road map for what you will write next. Everything you write, from now on, must be tightly linked to that purpose statement. *Everything.*

Tip for ESL Writers

Choose several articles in your field that your colleagues consider well written. If you're writing a grant proposal, ask for good models from the funding agency (if available) or see if some of your successful colleagues are willing to share their funded proposals with you.

Examine closely how the purpose statements are worded in these pieces, how the specific aims sections of the proposals are crafted. Notice the details: What kinds of verbs did the authors use? What details did they present? Did they do anything special or different to make the reading a bit more engaging or interesting? As you examine these models, take notes and try to do similar things with your statements. Try several different versions; vary your statements. Then, choose the best one for the final product.

EXERCISE 32—DEVELOP THE RATIONALE

TIME NEEDED: 15 minutes x session

MATERIALS NEEDED: Timer; your purpose statement (or specific aims section)

Whereas the purpose statement declares WHAT you'll be doing or presenting in your article, report, or proposal, the rationale explains WHY you chose to do it or present it. Far too often writers think about rationales as the portion of the introduction where they will explain why the topic is important and why it merits examination and discussion. And this is usually the extent to which researchers develop their rationale.

Yet when the author provides more than one rationale in a piece of writing, that piece becomes stronger. "*More than one?*"—you might ask. What other reasons should be provided, aside from the ones explaining why the topic is important? What else is there to explain *why?*

Describing the reasons why the author chose a certain *approach* or *methodology*—in addition to explaining why the topic is worth studying—strengthens the manuscript by a quantum leap. And if you really want to raise the quality of your work, provide a rationale for the statistical (or data analysis) strategies you've chosen to apply to the data. Note: The rationale for the *statistical* (or *data analysis*) strategies can be provided in the methods section; you don't have to include it in the introduction. Nevertheless, you can practice writing all your rationale segments as you write the introduction and later move the rationale for the statistical analysis to the methods section.

1. Based on the previous drafts you've developed thus far, identify the various rationales you want to present. Label and list these segments in your text. For instance, let's say you determine you want to write a rationale for

   a. the problem/issue/topic of the manuscript,
   b. the methodological approach or study design you chose to use (e.g., qualitative inquiry rather than a survey design), and
   c. the data analysis strategies you employed in your study.

2. Use the dumping-and-cleaning strategy you practiced a couple of weeks ago: Write down all the reasons for the choices you made (the choice of topic, approach, analysis). If appropriate, make notes to yourself to find adequate citations to support your choices. Grounding your rationale in authoritative citations will give readers more confidence in your decision. They will learn you chose qualitative inquiry over a survey design, for instance, not because they suspect you hate statistics but because you concluded that a qualitative

approach is the best choice, the best way to *know* your subject matter. In dumping, you may find it helpful to complete the following sentences:

a. The topic I chose to study is important *because* . . .
b. The approach I'm taking in this study is unique, or is the best one for my purposes, *because* . . .
c. The strategies (or statistical techniques) I chose for analysis are the best ones for my data *because* . . .

Make it a point to use the word *because* several times in your text. *Because* functions as a marker for the readers. When they see the word, they are primed for a rationale, a reason, an explanation. High-quality manuscripts (as well as reports and grant proposals) use the word *because* repeatedly.

3. After dumping, end your practice session. Return to what you wrote tomorrow.
4. Tomorrow, clean, edit, and reorganize your reasons. Add other reasons if you've thought of more since you stepped away from your writing.
5. If you choose, move the rationale for your analyses to the methods section (open a new file for the methods section if you don't have one already). Keep only the rationale for the topic, for your theoretical perspective, or for your overall approach in the introduction section.
6. Spend time this week cleaning, adding, and reorganizing a bit every day. Allow the reasons you've presented to mature over a few days. Don't forget to check your space or word limits and to keep the rationale segments short (in most cases, one or two sentences will suffice).

Example

Examples of rationales supporting the choice of a given research topic abound in the literature. Less common are instances of rationales supporting methodological choices. Below are examples of the latter.

The first example comes from the dissertation written by one of my doctoral students (now an assistant professor). She offers a rationale for the research paradigm she chose, backed by an authoritative source:

> Qualitative research methods are unsurpassed for researching problems/phenomena for which the variables are unknown and need to be explored (Creswell, 2005). (Garcia, 2011, p. 36)

Another example explains the choice of statistical analysis. In this paper, coauthored by another former doctoral student and me, we wanted to make clear why we had chosen to use Structural Equation Modeling (SEM) to examine sexual abstinence among adolescents:

SEM maintains several advantages over simpler analytic techniques such as regression. First, SEM was created to test and refine theoretical models attempting to explain or predict social or behavioral phenomena (Bentler, 1988) and, thus, the method is most appropriate for use in this study. Second, unlike older techniques which assume zero measurement error in sample data (which is never the case), SEM is unique in its ability to isolate measurement error variance during analyses. Third, SEM helps control for inflation of experimentwise (or Type I) error and, lastly, SEM "best honors the [complex] reality to which the researcher is purportedly trying to generalize" (Thompson 1994, p. 12). In health and sexual behavior research, most outcomes (i.e., behaviors) have multiple causes (i.e., predictors) and most causes have multiple outcomes, all interacting dynamically. Researchers in these fields investigate multivariate, not univariate, or isolated, phenomena with only one or two determinants. It is impossible to assess how multiple variables behave in each other's company when a researcher limits an analysis to a univariate/bivariate examination. Instead, SEM allows all variables—multiple independent and dependent variables—to be examined *simultaneously.* (Buhi, Goodson, Neilands, & Blunt, 2011, p. 65)

EXERCISE 33—PRESENT THE LITERATURE REVIEW

TIME NEEDED: 15 minutes x session

MATERIALS NEEDED: Timer; the sources you will cite (your reviewed literature)

The manner in which authors write the literature review portion in an article or grant proposal varies according to the field of study, each writer's style, the journal's style, and the instructions for the grant proposal. Therefore, there are no formulas, no rigid rules for how to write the literature review.[2]

In the absence of strict guidelines, what might be a good way to practice sharpening the presentation of your literature review? Practicing this week's exercise can help: It provides template sentences you can complete and apply to your writing. Spend each practice session this week completing the sentences below. These sentences will help you focus the literature review on the evidence supporting your point, your problem, your approach, or your hypothesis:

- ☐ These are the studies/reports that **support** (or validate) my **problem, research question, or hypothesis to be tested:** _____ (compile all citations lending support to your ***topic***). These studies/reports agree my problem (research question or hypothesis) is worth studying/exploring, *because* _____.
- ☐ These are the studies/reports that **contradict** the importance of my **problem, research question, or hypothesis to be tested:** _____ (compile all citations disagreeing that your ***topic*** is worthy of study or deserves testing). These studies/reports disagree that the topic I chose should be examined *because* _____.
- ☐ These are the studies/reports that **support** (or validate) **the purpose** of my article (or grant proposal): _____ (compile all citations supporting your ***purpose***). These studies/reports lend validity to my purpose (or approach, or what I'm proposing to do in this piece), *because* _____.
- ☐ The sources (citations) that **carry the most authority**, regarding the problem, topic, research question, or approach I'm taking are these: _____ (compile all the citations carrying the greatest weight, the ones holding the most ***authority*** in your field). The reason(s) they carry such authority is _____.
- ☐ In my literature review, ___ (number) citations may be considered ***dated*** or old; on the other hand, ___ (number) citations are ***recent.*** (Note: If you have too many dated citations, check whether this may represent a problem for the article or grant reviewers, and address the problem appropriately.) The definition for *dated* depends on each academic field's traditions and expectations. Ask your colleagues or professors about it.

EXERCISE 34—LAY OUT THE THEORETICAL FRAMEWORK

TIME NEEDED: 15 minutes x session

MATERIALS NEEDED: Timer; the sources for your theoretical approach or framework

Not all publications or grant proposals in the social sciences present, discuss, or even adopt a theoretical framework for the piece being written. As someone who teaches health behavior theories and has authored a book on theory for health promotion research and practice, I must confess that I tend to be drawn to articles or proposals that *do have* a theoretical perspective. It is like an appropriate frame placed around a beautifully painted canvas. It just completes the picture; it provides the paper a more refined and finished look and helps the argument, the rationale, and the proposed topic stand out! (Not to mention the contribution the study can make to theory development in that particular field.)

Again, it would go beyond the scope of this book to teach you how to develop a theoretical framework or even to advocate for the use of theories. Here, I want to provide ways to *practice* presenting a theoretical framework to readers.

This exercise, therefore, will "force" you to write something about the theoretical framework (a single theory or multiple theories) informing your research, your study, your writing (when applicable, of course; some manuscripts are atheoretical). During each of your practice sessions this week, complete one or more of the following sentences. If you don't know how to complete them, you may need to read or research further into the topic you've chosen. If your manuscript or proposal does not adopt a theory or theoretical frame, skip to Exercise 35.

- ☐ The theory (or theories) I plan to use as a framework for, or to inform my study, are _____.
- ☐ These theories were proposed and developed by _____ (provide original sources for the theories' main proponents).
- ☐ The *sources* I want to cite for the theories are _____, *because* _____.
- ☐ I chose these particular theories *because* _____. (Note: Explain, in a brief statement, how the theories you chose relate to your subject. Make the link explicit; don't expect the reader[s] to *infer* the relationship between the theories and your topic.)
- ☐ Originally, each theory was developed (or designed) to explain _____. (Note: Briefly explain the original, intended purpose of each theory.)

- ☐ Other studies that have applied these theories are _____.
- ☐ If my use of the theory (or theories) is unconventional and has not been attempted before, why do I believe it's important to use this approach here? _____.
- ☐ The constructs I will use in my study/report are the following: _____.
- ☐ If I'm adapting existing theories to my study, my adaptation consists of _____. (Note: Briefly describe how you adapted certain constructs or relationships from the theories for your own purposes.)

EXERCISE 35—CHECK IT

TIME NEEDED: 10 minutes x session

MATERIALS NEEDED: Timer; draft of your introduction

This week, you will practice systematically checking the draft of your introduction (purpose statement, rationale, literature review, and theoretical framework). Go through each question in the checklist below and answer honestly those that apply to your piece. If you sense certain segments need more work (either generating new text or editing), tackle the problem right then: Either spend time generating/editing, or make a note to yourself, in the text, to return to that portion to add or rewrite.

Dedicate 10 minutes per writing session to the checklist below. If you find you need more time, that's okay, but don't binge and dedicate your entire writing session to the checklist. Keep in mind you risk burning out and not wanting to return to your text if you binge write.

Checklist for Introductions[3]

- ☐ Is the problem, topic, research question, or hypothesis I propose to address presented clearly? Can readers outside my field easily identify what I'm proposing to do, even if they do not understand my subject area well?
- ☐ Is the importance of my topic, problem, or research question evident to the reader? Can readers outside my field identify my rationale, even if they cannot understand the specific arguments or available data?
- ☐ Does my introduction contain a clear purpose statement or a sentence beginning with "The purpose of this paper/grant is . . ."?
- ☐ Does my introduction contain any unnecessary information? Can I delete it?
- ☐ Do I cite sources to support my problem (research question, topic, or hypothesis)?
- ☐ Do I cite sources that contradict the importance of my problem/topic (alternative points of view)? Am I being fair in presenting the alternative arguments?
- ☐ Do I cite authoritative sources from my field of study?
- ☐ Do I cite recently published literature?
- ☐ Does my literature review show I know the most important and relevant sources regarding my topic (published as well as unpublished)?
- ☐ Is my literature biased exclusively toward my field? Many topics have been studied by different disciplines, yet we often tend to confine our reading to our particular area. For example, adolescent pregnancy prevention is a popular topic in the public health and pediatric medicine literature, but it has also been studied in the fields of economics and law. Does my literature review provide evidence I have tried to avoid paradigmatic biases (when appropriate)?

- ☐ Do my citations include secondary sources (e.g., "Jones, 1939, as cited in Smith, 1950"). (Note: If you're using secondary citations, be careful. Some fields view the practice of quoting secondary sources as problematic. As much as possible, cite the original references.)
- ☐ Are all the citations I present *necessary?* Does each one contribute to the text, or are some redundant? If redundant, what can I delete? (Note: Remember that citations—even the numbered formats—add to your text's word count. Some journals limit the citations the author[s] may include, due to page restrictions.)
- ☐ Are the citations helpful to the readers? Will they be able to learn something if they check these citations themselves?
- ☐ Am I citing or using other authors' materials, for which I need permission to publish? (Note: If you are using a table, figure, photo, or diagram from another publication, you need to ask for permission from the publisher holding the copyright to that piece. Ensure your use of citations is covered by copyright laws' "fair use" clause.)
- ☐ Is my theoretical framework presented logically and clearly? Could I add a graph or figure to help readers visualize the relationships among the variables in my study?
- ☐ Do I provide enough background about the theory (or theories) I chose to use, to orient readers who are not familiar with the framework?

Notes

1. Grant proposals for federal agencies such as the National Institutes of Health and the National Science Foundation ask for a one-page, all-inclusive synopsis of the proposal labeled the "specific aims" section. That section must contain the following elements: (a) a "catchy" introductory sentence, (b) brief description of current knowledge, (c) the gap in the knowledge base about the topic, (d) the long-term goal for the project, (e) the objective, (f) the central hypothesis, (g) one to three specific aims the proposal plans to achieve, and (h) expected outcomes (Russell & Morrison, 2009/2010).

2. My students always ask me if I know a good strategy for conducting and organizing literature reviews. It is beyond the scope of this book to teach you how to review the literature in your field, but I would strongly recommend J. Garrard's (2011) *Health Sciences Literature Reviews Made Easy* as a useful resource. In that book, Garrard walks the reader step-by-step through the process of conducting a systematic literature review (i.e., a special type of review that is more rigorous and systematic than the traditional ones). Even if you're doing a traditional literature review, you may benefit from her tips and suggestions, especially the one about using a matrix to organize the literature you are reading.

3. Adapted from Reitt's (1984) article "An Academic Author's Checklist: Essential Questions a Scholar or Scientist Must Ask of Any Manuscript in Preparation—and an Editor or Referee Must Also Consider."

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