Defining Literature Reviews

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Learning Outcomes

In this chapter, you'll

- learn the definition of a literature review
- understand the difference between a literature review and a traditional argumentative research paper
- learn how literature reviews are used in the scholarly research process
- understand the purpose of a literature review

10.1 What's a Literature Review?

To answer this question, I have to tell you a story, so stick with me.

According to Marty McFly, this is a Hoverboard. Photo by [Frank Schwichtenberg](#)

The straightforward answer is that a literature review is a review or synthesis of all the research published on a certain topic. But I'd rather explain it from a skateboarder's perspective:

One of my favorite movie series is the 1980s classic *Back to the Future* trilogy where the bodacious skater Marty McFly time-travels to the future and sees the coolest thing I could imagine: a hoverboard. As a kid, I was a dabbling skateboarder at the time I saw this movie and thought if I could just have one of those rad, flying hoverboards, all my troubles would disappear. It was an optimistic time.

Trouble is, hoverboards are really hard to make. We've already passed the year 2015 when the "Future" of *Back to the Future Part 2* takes place, and guess what? No hoverboards. I know what you're thinking: you've seen a skateboard-like, two-wheeled device marketed with the name "Hoverboard" that teenagers ride around parks, sidewalks, and their parents' basements. But you're wrong: that's just an electric, no-handled scooter that occasionally catches on fire and burns people's houses down. I'm not satisfied.

Is this a real hoverboard? I think not. Photo by Soar Boards

I want a *real* hoverboard. That you ride *in the air*. So how can we know when real hoverboards will be available? How can we know where the technology is now? Will we know a real hoverboard when we see one? Tony Hawk, the best skateboarder of all time (whose face was incidentally taped to my wall in the '80s) recently filmed a 2-minute video of how far real hoverboard technology has come—filmed on the very day Marty McFly supposedly went to the future: October 21, 2015:

Tony Hawk and the cutting edge of hoverboard research

[Watch on YouTube](#)

Tony Hawk and the cutting edge of hoverboard research. https://youtu.be/wCZiEtduSQg

Although this "hoverboard" was really a huge black rectangle the size of Delaware floating only an inch off the ground, and although Tony Hawk fell off a lot, he was technically in the air, so I'm taking that as a good sign. Then recently, a professional jet ski rider broke the world record for longest time "hovering" in the air with a highly dangerous jet-engine-propelled contraption called Flyboard Air. It's also definitely a step in the right direction, but there's a big problem (beside extreme danger): it's projected to cost around $250,000. Sadly, not in my price range.

The good news is, now we've found the point where hoverboard research actually is. The bad news: we have to face the sad truth that it might still be a while before we get real Marty-McFly-approved flying hoverboards that non-billionaires can ride. But at least now we know. Because knowing is half the battle.

The State of a Field on a Topic

That leads me to literature reviews. Whenever you want to know the state of a field of research like how far hoverboard technology has come, the best way to find out is probably not YouTube videos. It turns out you can do something much more reliable: conduct a literature review. In this case, "literature" doesn't mean the Victorian novels you read in English class, it means all the research published on a certain topic. So a literature review is simply a review or a *synthesis* of the research published on a topic.

Standing on the Shoulders of Giants (Public Domain)

Researchers and companies today don't just start projects out of the blue—they do their homework first by finding out what others have already done. So if you want to make a hoverboard, you don't just go to Home Depot and buy random parts—you research what already exists and talk to the experts so you don't have to reinvent the wheel (get it?).

> *"If I have seen further, it is by standing on the shoulders of giants." —Sir Isaac Newton (and the motto of Google Scholar)*

Find the gaps in research. Photo by Jeremy Bishop on Unsplash.

Before good researchers set up any surveys or experiments, or even write a proposal for funding, they figure out exactly which research questions have already been asked and answered. Same goes for anyone wanting to make a product that will sell. But more importantly, they look for the gaps in the research or marketplace where answers have yet to be found. And then they focus their own work on filling in some of those gaps. That'll be your job, too.

In other words, the goal of a literature review is to find the sweet spot where the most promising research is happening now—we call that the cutting edge. (*The Cutting Edge* is also a cheesy '90s movie about ice skating, so be sure not to get them confused.) As Marty McFly would say, finding the cutting edge is pretty gnarly because that's where the adventure begins. So grab the closest thing you have to a hoverboard, and let's go.

10.2 How is a Literature Review different from a typical Research Paper?

*Suggestion: Just for fun, as you read this next section, set the mood by playing one of these songs called "Old Friends." You'll see how it's relevant in a minute.

1. Simon & Garfunkel "Old Friends"—old-school classic

2. Ben Rector "Old Friends"—w/ high school band Euromart, in the garage of the house he grew up in

3. Willie Nelson, Roger Miller, Ray Price "Old Friends" —country Western style

You've probably been writing research papers most of your life—you know, starting from the five-paragraph essay you learned in high school to the term paper you wrote last semester that had a thesis statement and lots of quotes. So it can seem daunting to switch gears to writing a literature review, but there are some distinct advantages to making the switch (that I'll get to later). The trick is first understanding the difference between the two.

Research Papers are Thesis Driven

The difference between a typical research paper and a literature review is your purpose and strategy. Tell me if this sounds familiar: when you're assigned to write a research paper, you start with a thesis or argument that you'd like to make. Your thesis has to do with a new way to look at something or a change you'd like to see in the future. Then you search for sources that support your point. You might adjust your thesis if you come across sources that challenge your claim, but generally, the sources you've gathered become evidence for your thesis and you use them to support your point. In other words, your argumentative research paper is **driven by your thesis**.

Literature Reviews are Source Driven

In contrast, when you write a Literature Review, the sources themselves dictate what you'll say in your paper. Remember, your goal is to tell your audience the state of the field on a topic—what's been happening in the published research—so you can find the cutting edge and where the research gaps are. Therefore, you need to find and evaluate the most relevant sources surrounding a topic and then write a review *based on what you find*. You can't decide on a thesis statement or know what points you'll make before you start because you have to find out what researchers are doing before you can report on that. Simply put, your literature review is **driven by your sources**.

You'll still have an overarching point/thesis that controls your literature review paper structure, but it will be a claim about what patterns you found in the research—*not* an argument about a change you want to see in the future or a new way to look at something. And you'll decide on your thesis much later in the writing process. Here's a table that compares the writing process of a traditional research paper with that of a literature review:

	Traditional Research Paper	**Literature Review**
	Thesis-driven	Source-driven
Step 1	Conduct background research on a Research Question	Conduct background research on a Research Question
Step 2	Choose an argument/thesis	Find, evaluate, & annotate sources
Step 3	Find sources for evidence to match your argument	Look for patterns in the sources, find gaps
Step 4	Look for counterarguments and evidence to refute them	Develop a thesis based on where researchers agree & disagree in the field
Step 5	Outline the points of your argument	Write an outline based on the patterns and gaps you found
Step 6	Write paragraphs that support your thesis with evidence/quotes	Write paragraphs that support your thesis by synthesizing sources

Literature Reviews: Catching up with Old Friends

Here's where the song comes in—another way to think about the difference between literature reviews and the traditional research papers you're used to writing (with props to [Professor David Taylor from the University of Maryland](#)). What do you do when you meet an old friend? You ask,

Literature reviews are like getting filled in by an old friend. ([Public Domain](#))

"How are you?

What have you been up to?

Fill me in!"

Literature Reviews are like getting filled in by an old friend. Only this time, you're explaining how a field of research has gotten to the present (like how far hoverboard technology has come). But like a conversation with an old friend, you want to review only the details most relevant to the situation. You don't usually give a moment-by-moment chronology of what you've done in your life (no one has time for that); rather, you talk in terms of categories—work, family, travel, etc. This is like the synthesis that happens in a Literature Review. As you read sources about a specific topic, you'll look for themes, for similarities and differences, for points of agreement and disagreement, for gaps in the research that haven't been filled in yet. Those themes become the categories you'll talk about in your literature review so your audience will understand the big picture about your topic.

In contrast, a traditional research paper is like what happens after you've reviewed the past with your friend—only then do you talk about the future. What are your old friend's future plans? Do they have a big trip in the works or a change in career? Are there goals in their life plans they still want to accomplish? Do you agree or disagree with them? This is like the argumentative thesis statement in a research paper about what changes you think should happen in the future or a new way to look at something. A typical research paper talks about how we should look at a problem differently or how we should fill in the gaps in research. It's forward thinking rather than talking about what's happened up until now.

And as you might have realized by now, you could even call the introduction section of a traditional research paper a "mini literature review" because in it you explain the background behind your topic before you make your argument about the future. So it's safe to say that in order to get to the future (research or change), we usually first have to go back in time (see what's come before). Marty McFly would approve.

Why Literature Reviews?

There are some huge advantages to trying out this new genre of a literature review as opposed to a traditional research paper. We learned in Chapter 9 Talking About Sources that most college students do not engage with their sources—most students merely find quotes to fit their argument and plug them into their papers without actually understanding—or perhaps even reading—their sources. Many even quote directly from the abstract, not even bothering to read past there. Even more telling is that in the Howard and Jamieson study mentioned in Chapter 9, the number of students who *summarized* their sources in their papers was only 6%. That's probably because summary is a higher-level task that requires actually understanding the sources instead of merely extracting one quote at a time. And without summary, you can't have synthesis—the cornerstone of a good literature review. It's as if students are spending a lot of time exercising their research muscles, but have completely missed their most essential summary and synthesis muscles—their core, if you will.

Bundesarchiv, Bild 102-11513
Foto: o.Ang. | 1931

Summary and synthesis are like your core muscle exercises—essential skills that will make all writing and headstands easier. (Wikimedia Commons)

Because of findings like this, many instructors are now assigning literature review papers rather than traditional research papers in order to isolate those core muscles that need exercise the most—the summarizing and synthesizing muscles. Because Literature Reviews are *source-driven* and require understanding and summarizing many sources, they are the perfect assignment for strengthening the missing skills in your writing repertoire. We've found that when our students write literature reviews, they learn (sometimes for the first time) the true steps of the research process; how to read, understand, and summarize sources; and even more importantly, they can finally see the big picture and synthesize those sources to understand the state of a field.

And by strengthening your ability to evaluate and synthesize sources, you'll actually strengthen your other writing skills as well, including your traditional research paper writing skills. You'll find after you focus on the literature review that finding and evaluating *any* type of source will be much easier—just like strengthening your core muscles will help you with all types of exercise.

Literature Reviews can help you develop rock hard research abs. Image by FelixMittermeier on Pixabay

This might sound crazy, but I actually get emails every semester from former students thanking me for assigning them a literature review because it's helped them with research projects in their next classes or jobs. You, too, can get rock hard research abs by learning how to write a literature review!

10.3 Literature Reviews in the Real World

In case you're not convinced enough to take on the task of writing a literature review, I thought I'd mention that literature reviews come up in the real world in many different venues that you'll encounter in your schooling and career. You'll see that they often follow similar patterns and purposes:

Grant Proposals

Any grant proposal submitted to request research funding begins with an extensive literature review to justify the need for the research funds. If you can prove there's a gap in knowledge, it makes it that much easier to convince your audience to give you funding to fill that gap. More on that in Chapter 12: Proposals.

IMRAD Articles
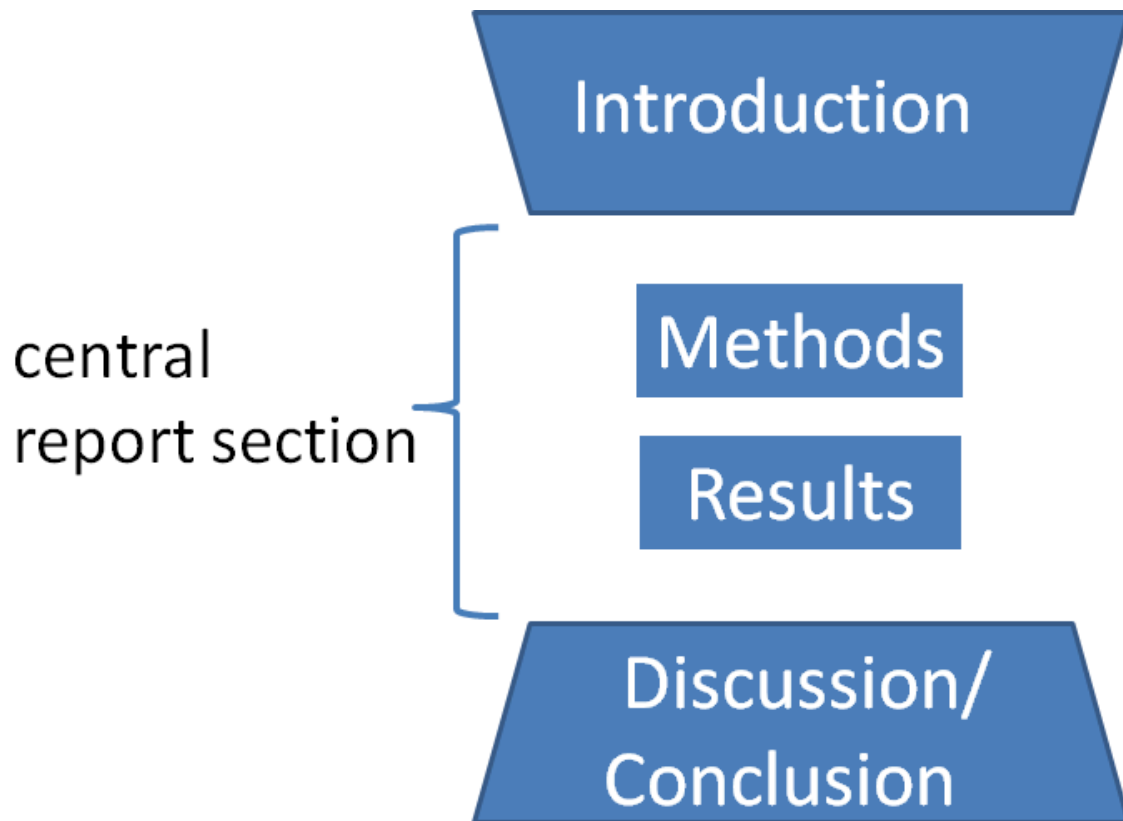
The Introduction of an IMRAD article includes a literature review. Photo by Tom Toyosaki on Wikimedia Commons

IMRAD (pronounced "im-rad") stands for Introduction, Methods, Results, and Discussion and is the most common genre published in the social sciences and sciences. Most of the sources you gather will likely be IMRAD-format papers or will at least begin with an introduction. The "I" in IMRAD stands for Introduction and usually consists of a review of the literature on the authors' research topic. The author(s) usually use the Introduction section to report on the published literature about their research topic and reveal the trends and gaps in current research. An added benefit to beginning an article this way is that by showing the gaps in the research, the author(s) can justify their own research and explain the significance of the topic they chose to examine. Clever!

Photo by Yogi Purnama from Pexels

It's kind of like a superhero moment when someone publishes that they have a problem (e.g., turns on the Bat Signal or yells "Help!"), and Batman or Superman or Wonder Woman swoops in and saves the day. The authors lay bare a problem or gap in current research, and then they reveal the research they did to solve that problem, fill that gap. Ta da! Research saves the day.

As you might guess, the sections following the Introduction (Methods, Results, Discussion) describe the primary research the author(s) conducted to answer their research question. First they report on their quantitative and/or qualitative *Methods* (M in IMRAD) including statistical analyses. Then they publish their *Results* (R in IMRAD). Finally, the author(s) embark on a *Discussion* (D in IMRAD) of their results in the context of the greater field of research and make suggestions for future research. This starts the research cycle over again as someone else reads their article as part of their own review of the literature and discovers a gap in the research that can be filled by new primary research.

Published Literature Reviews

In the world of academia, literature reviews can also be published on their own. For example, if someone does an extensive investigation into an important topic, the publishers of academic journals will often publish that literature review on its own to help other researchers understand that topic better.

Market Analyses

In the business sector, when someone wants to sell a product or service, they usually conduct a market analysis first to figure out how their product/service could fill a niche in the market. Entrepreneurs know that it's worth spending time researching existing products as well as potential competitors to find potential gaps in the market. They know that in order to convince people to buy their product/service, they have fill a customer's need. Conducting a market "literature review" helps them pinpoint those gaps in the current market so their product will have the biggest impact and their business will succeed.

Popular Literature Reviews

Image by

Lest you think nerdy academics and business gurus are the only ones who rely on literature reviews, recall the last time you went on Wikipedia. If you think about it, Wikipedia is really just a giant Literature Review on millions of topics. Although the information on Wikipedia is not formally peer-reviewed like the reviews published in academic journals, they do cite all their sources and frequently revise to keep the information current. Clearly there's a market for relevant information. If you really want your mind to explode *Inception*-style, look up "Wikipedia" on Wikipedia and you'll find a literature review about a literature review. Crazy.

All this is a long way of saying that literature reviews are a part of life. And they're a huge part of any scholarly discipline, any successful business, and even our basic human desire for knowledge. So if you're ready to learn how to tackle your own literature review, let's talk about the first steps in Chapter 11 How to Plan a Literature Review.

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