

## How to write a Literature Review

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### Step 1: Read a lot.

Sounds simplistic, but the fact is that you do have to read a lot, and read with care and purpose. There are things that you can do within the process to make your life easier, and the purpose of this short document is to point some of them out. Hopefully, this will help. However, there is no substitute for good, thorough, and hard work.

When you start your reading, start broadly. If you have an area you are interested in, such as computers in education, multi-media, distance education, web-based instruction, or some other specific concentration, start your reading in those areas. Course assigned reading will help, but you will have to branch outwards and inwards. Don't be afraid to follow an area that seems not to be related to your area. You are trying to define your interests. Allow yourself the freedom to do that. Here are some tips on how you might branch out, and/or focus in:

- A. Look carefully at the references. Should the author raise a salient point that interests you and they happen to cite somebody, look up the citation and read the original source. The original source will have its own references, follow these. Repeat as necessary. This shows you work done prior to the article in hand.
- B. Read from tangentially related fields. Don't be afraid to look outside of the literature in IT to other areas. Educational Psychology, Human Resources, Computer Science, and Communications Studies are but a few of the related fields with important information related to our field.
- C. Use the "cited by" features in databases where it is available (SCOPUS, ACM Digital Library, Business Source Complete, etc.) This will give you the ability to look at works done after the article in hand (usually moves the work forward).

## Step 2: Define the area.

The purpose of a literature review is to review all of the relevant literature on a particular topic. ALL OF THE INFORMATION. A daunting task, no doubt. The reason we do this is to see what has been said about the subject in order to couch our own research within the context of the existing body of literature. We are trying to ADD to that body. It is important to know what that body of knowledge says so that we know where our own work should go, and, ultimately, does go. Keep in mind that when you are reviewing the literature, typically you are looking at the literature that deals with your particular area. So if you are looking at motivation in CBT, you would focus on that literature, and not every thing ever written about CBT.

With that said, you will be reading a lot. No doubt about it. However, there are a few things you could do to make your life easier, and your work more focused.

- A. Define the sources you will look to for information. With the explosion in our access to information, this becomes more and more important. At the beginning of your review of the literature, state what indices, libraries, and other sources you may have looked at. Indices might be, ERIC, Psyc Lit, DAI, or other bound or electronic repositories of printed information. Libraries other than our own can be searched. Internet access through Gopher or the WWW will allow you to search libraries from here to Brisbane Australia. Tell your reader where you looked.
- B. Exclude things that are not relevant. When I was doing a study on screen design, I intentionally did not look at literature before 1984. 1984 marked the beginning of the graphical user interface. I did not need information that was not related to the graphical user interface. The point is, I saved myself time and effort in not reading irrelevant, or dated information. There were references pre-1984, but they were not technical references.
- C. Make no apologies. Don't tell me your literature review is flawed from the beginning. Tell the reader where you looked, what you excluded, but don't tell them that there are hundreds of libraries where you didn't look. As a reader, I depend on you, the researcher to make good decisions.

### Step 3: Keeping track of all of this stuff.

The hard part is trying to make sense of a body of literature that you will read over a period of, sometimes, years. In that time, trends may change, and new things will happen. It is your job to keep track of all of this so when it comes time to write the literature review, you (1) know what you are talking about, and (2) don't have to re-read everything. Here are some tips on how to manage all of this information.

- A. **Save the full text articles.** Whenever you read an article that seems important, copy it and put it in a file. Even if you think it may not be important, copy it any way. Importance may grow on you. Save the files in one folder (I call mine Sources). Use the following file naming convention. Last name of first author-First word of article title-year. This way you will have an alphabetical list by author's name all in one place and you will easily find the full text if you have the citation.
- B. **Save all bibliographic information.** You can simply use a word document, or whatever works for you. But if you have many references and/or will be doing this over a period of time a database of some type is preferable. NJIT has licensed EndNote, a commercially available piece of software that is made specifically for handling and formatting bibliographic information for writers. It has a web-based and a pc-based program. For more information see the [NJIT Library page on EndNote](#).

### Step 4: Writing it up.

When writing a literature review, keep in mind that you are reviewing the literature, not summarizing it. For example, if Smith (1978) conducted a study which found that squirrels preferred pecans to acorns, you want to say something like the following:

Smith (1978) found that squirrels preferred pecans to acorns.

You do not want to do this:

Smith (1978) conducted a 3x3x3 factorial design to study squirrels. He concentrated on brown squirrels, stating "flying squirrels are just too damn unpredictable to study" (page 54). 1000 squirrels were broken into six

groups and given the choice of nuts to eat. 1 group was given nothing but pecans, the other nothing but acorns, and then allowed to switch, BLAH, BLAH, BLAH, BLAH.....

The point is that in reviewing literature, you do not have to summarize it. If I want to read it, I will. There are exceptions. If you are proving a particular study, or disproving a particular study, then you would want to give more information on the study than the outcomes and the author with citation. But what you are trying to do is prove a point, and you are trying to write well and cogently within the confines of APA format. Use the literature as examples to make your point.

Additionally, if you are citing a bunch of people who say the same thing, summarize the basics of their point and cite them in string. For example:

While Smith (1978) says that squirrels prefer pecans to acorns, his theory was questioned and disproved by a number of people who found that there was no significant difference for nut preference among squirrels (Amos, 1979; Barry, 1980; Catzenjammer, 1980, Douglas, 1980; Zimmerman, 1983).

For some areas of study, there are a large number of people doing studies on the topic. For example, the literature is full of studies of learner control. Some studies say that more learner control is better, some say that less learner control is better. You can report that through a narrative, but a chart indicating the authors of the studies, the findings of the studies, and where the authors fall in all of this could be helpful as well:

<i>Authors</i>	<i>Type of study</i>	<i>Findings</i>	<i>Problems with the study</i>
Jones, 1999	2-tailed t-Test	NSD	Killed the control group.
Ullmer, 2001	Case Study	Users are more likely to like more learner control if they are bribed.	Author convicted of subject bribing.
Williams, 1998	3x3x3 Factorial design	Preference for less learner control.	Small sample size (n=2)

Literature reviews don't have to necessarily be long, they just have to be complete. Anything that you can do to help your

reader process this information, and possibly cut down on your own narratives will be appreciated by your reader.

### Closing Thoughts

The most common mistakes people make are that they don't do enough literature, or they do too much literature, or they summarize the literature rather than review it. Remember that you are trying to set the stage for your own work, and that outside of the dissertation, you will never have more than about 2 pages in which to do it. I would recommend that you read some literature reviews to find out how others have done this. See what you like, and what you do not like. Some databases (like SCOPUS) allow you to restrict your search to reviews. Some journals publish only review articles (like The Review of Educational Research). Additionally, check our library for dissertations done at NJIT that have literature reviews. Also, I would give this handout the very important caveat that my opinions on what is a good literature review may be different from those of others. These types of activities are nearly always situational: What works well as a lit review for one study may not work for another. Listen to what I have said, and always be open to other ideas. And as always, if you can help me make this better, give me your comments.

For more information consult the NJIT Library book entitled [Writing Literature Reviews](#) by Galvan.

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