

## EDITOR'S NOTE

# Improving Your Argument By Identifying A Literature Gap

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## ABSTRACT

*More often than not, a peer-reviewed journal article's literature review is a boring to read as it is to write. However, literature reviews do not need to be laborious for all involved. Instead, the best literature reviews offer a crisp view of a researcher's landscape and succinctly provides a compelling case for critical research that needs to be done in order to move the field forward. In order to provide readers with a useful literature review, it is critical that authors avoid providing paragraph after paragraph describing a summative chronology of the topic in the literature, but instead provide a critical synthesis of what is known, and what is not known about a topic. In the end, if the reader is convinced of what will be known and advanced as a result of a researcher undertaking the considerable time and effort to conduct and publish a given study, the reader is much more likely to cite your paper downstream in their own work.*

**Keywords:** Discipline-Based Education Research; Publishing; Literature Review

*A*ny prolific research publication author will tell you that creating a compelling and crisp literature review section is often the most challenging part of a paper to write. This is mostly because—much like Goldilocks' own challenges trying to successfully cohabitate with the Three Bears—the most fruitful literature reviews cannot be too long, or too short, but must be just right. Writing a literature review that is “just right” is far easier said than done, but with a few hints toward avoiding common pitfalls, you can quickly improve your paper's argument.

The point of the literature review section of the paper is not just to give credit to people that have looked at your targeted research question before. Giving credit where credit is due is certainly important, but the far more important reason to have a fruitful literature review is to give your work context by situating what you are working on in the broader landscape for your community of scholars. A compelling literature review simultaneously explains both why another scholar should read your work and why the work was worth taking the all the time and effort to do it in the first place. In other words, your literature review provides the argument for “so what” right from the beginning.

The most common pitfall writers fall into is to create a literature review that is simply an annotated bibliography. This is an ongoing and boring listing of who wrote what paper in which year using what method and what they found out. This misguided approach most likely stems from our school-aged years where we had to cite a specific, predetermined number of references in our school-assigned papers regardless of how many citations were actually needed to make an argument. Long writings of paragraph after paragraph of sequentially listing work of others is terribly boring to write, and even more boring to read. Avoid the cataloging annotated bibliography approach to writing your literature review at all costs.

The second most common pitfall authors writing literature reviews fall into is to fail to be sufficiently critical. Unlike your reader, you have read many papers on the topic at hand and readers have no way to know which work is important and which is cursory. Your job as the author is to provide a critical synthesis of the extant literature, not a non-evaluative summary. Compared to most of your readers, you are the expert and we all need you to point out what is useful and what was done well and what is not. If you neglect to be respectfully critical, then other researchers following your work might mistakenly decide that a study you cite is solidly worth standing upon when instead it

desperately needs to be redone with much better controls. Just because something is published, does not mean it is a great study.

The most common error researchers attempting to publish their work make is failing to clearly identify the gap in the literature that the presented study is attempting to fill. A compelling literature review explicitly points out what is known about a topic AND what is not yet known. Far too many studies are weakly justified as simply being the next logical step after They & They (n.d.) published their study suggesting future research is needed with a bigger sample size. In the end, bigger sample size is rarely a sufficient justification on its own.

Perhaps even more important than pointing out an existing gap in the literature is providing an argument about what we as a community of scholars will be able to do if one were to successfully fill an identified gap. In the end, much of discipline-based education research is about understanding students' underlying thinking and gathering evidence to take action toward enhancing teaching and learning. Readers will be more likely to read—and cite—your research if they clearly know what benefits answering your research question actually provide the larger scholarly community. The bottom line here is that the best literature reviews synthesize and criticize rather than summarize. In order to provide readers with a useful literature review, it is critical that authors avoid providing paragraph after paragraph describing a summative chronology of the topic in the literature, but instead provide a critical synthesis of what is known, and what is not known about a topic. In the end, if the reader is convinced of what will be known and advanced as a result of a researcher undertaking the considerable time and effort to conduct and publish a given study, the reader is much more likely to cite your paper downstream in their own work.