

Conclusion Section for Research Papers

Parts of a Research Paper

- Abstract
- Introduction
- Literature Review
- Methodology
- Findings/Results
- Discussion
- Conclusion

Conclusions are often the last section your audience reads, so they are just as important as introductions in research papers. They are your final opportunity to leave a good impression on the reader. Some academic readers will *even jump* to read the conclusion to help them decide if they should read the whole paper! Not surprisingly, they can be the most challenging part of a research paper to write. This handout will focus on the purpose of a conclusion, as well as provide tips about what to do and what to avoid when writing a conclusion. This handout also contains two annotated examples--a short one and a longer one--from published articles.

The Purpose of a Conclusion

Conclusions aren't simply an overview of a paper. Instead, they should reiterate why your research is important. While it is helpful to include a brief summary, that is only the beginning. If done well, conclusions can leave readers feeling both satisfied yet hungry for more. Effective conclusions help readers reflect on what they just read, draw connections to existing knowledge, and spark their desire to further explore the subject. Ultimately, your conclusion should help readers answer the following question: *Why should I care about this topic?*

Conclusion Dos and Don'ts

DO keep it short and sweet. While there is no hard and fast rule on length, conclusions are typically one paragraph long; however, you may find some that are two or three paragraphs long.

DON'T state the obvious by writing "in conclusion" or "in summary." While these phrases are helpful during oral presentations, context clues should indicate to your reader that they are reading the conclusion of your paper.

DO provide a brief overview of your paper and address whether or not it answers your research questions.

DON'T introduce new information. Instead, your conclusion should restate your main points and provide closure. You may also offer suggestions on how your research can be expanded or improved.

DO mention the limitations of your study and their implications if not already addressed in the discussion section of the paper. Examples of limitations include sample size or composition,

participant attrition, study duration, etc. Being transparent about your study’s shortcomings is not only ethical--it also helps guide future research; any flaws you’ve identified can be addressed in the event your study is replicated. All studies have limitations; being up front makes your paper seem credible because you show your understanding of what your study can and cannot say.

Sample of a Short Conclusion with Annotations

Provides brief overview and significance of the study	This proof-of-concept study represents the first double-blind, randomized, placebo-controlled trial to assess the effect of a CBD-rich cannabis extract in UC. With the exception of the endpoint, it was not sufficiently powered to pick up significant differences, but was designed to identify patterns that favor the active treatment. Despite the poor tolerability of the active study medication and the relatively short treatment window, this study suggested that CBD-rich botanical extract may have provided therapeutic benefit to those patients who tolerated it. These findings should be interpreted with caution given the multiple limitations of this study, but they encourage future studies to look at CBD-rich botanical extract. It will be important to review the formulation, titration, and dosing for future studies with the aim of improving tolerability.
Mentions limitations and further explains why this study is important	
Offers suggestions for relevant future studies without introducing new information	

Source: Irving et al., “A randomized, double-blind, placebo-controlled, parallel-group, pilot study of cannabidiol-rich botanical extract in the symptomatic treatment of ulcerative colitis,” *Inflammatory Bowel Diseases*, 24(4), 2018.

Sample of a Longer Conclusion with Annotations

Doesn’t introduce the conclusion with obvious phrases, such as “to summarize,” and explains why their research is important	Social commerce is increasingly drawing the attention of practitioners and academics. Evidence from previous studies indicates that social commerce is a new phenomenon that needs to be better understood. This study conducted a systematic literature review, explaining the social commerce concept, presenting its state-of-the-art, and describing the relevant features in social commerce design. More importantly, a new conceptual model for social commerce design has been introduced, with the hope of providing insights into social commerce and the overall relationships among the participants, the community and online commerce.
Summarizes the key points and purpose of the paper	

Describes the study's limitations

There are some limitations to this study though. For example, our conceptual model was only applied to two social commerce websites, which kept us from making our results more empirically meaningful. The other limitation concerns the identification of e-commerce and Web 2.0 design characteristics. The process of selecting appropriate design characteristics and grouping them into relevant design principles is based on the reviewed state of the art. Hence, some characteristics may be found to relate to more than one design principle, however, our study groups these characteristics into one design principle based on their key features.

Shares ideas for future studies

This study being the first step, a number of future studies will be carried out. These include: To build a social commerce prototype to validate the proposed design model and relevant design principles. To explore the design process and principles within the two categories of social commerce (i.e., e-commerce-based and social network based social commerce platforms). To identify design patterns of social commerce by studying a variety of real world social commerce applications from a software engineering perspective.

Expands on the importance of this study, describing how to apply their findings to the real world

The managerial recommendations of this research are as follows. First, management needs to identify its existing e-commerce and social networking applications and capabilities. They must then decide on the way to develop their social commerce strategy: to add social features to their e-commerce platform, or to add commerce features to their social network platform. If they have an e-commerce operation, they already fulfill the features in the Individual and Commerce layers of our proposed model. They need to implement the features in the Community and Conversation layers. If they have a serious presence on social networks, then they already fulfill the Individual, Conversation, and Community layers. All they need is to further implement the Commerce layer.

Source: Huang and Benyoucef, "From e-commerce to social commerce: A close look at design features," *Electronic Commerce Research and Applications*, 12(4), 2013.

Activity : Learn About Conclusions in Your Field

Navigate to Google Scholar or your library database. Find several articles on a high interest topic for your chosen field (e.g., *shock wave physics* for mechanical engineering or *islet transplantation* for nutrition). Consider choosing articles from peer-reviewed journals, which you can search for by applying a filter.

Open several articles and make observations about their conclusions. Can you identify the conclusion without obvious phrases? Do they provide more than just an overview of the paper? Do they include limitations, or are the limitations in the discussion section? What is the average length?

References

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