# 10 Tips *for* Report Writers

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# Introduction

As the online education community continues to grow, the research literature in our field is also expanding. This scholarship aims to help a range of stakeholders make data-driven decisions about student learning, grow online programs using best practices of distance education administration, support faculty in delivering quality courses and more.

At the Oregon State University Ecampus Research Unit, we write and read several research reports each year. We know that report writers are often juggling multiple projects at once and that a handy tips guide might be useful as a final check before distributing study results. Based on our collective observations as report writers, we also see a need to articulate standards of quality that authors in the field can refer to when developing study reports.

*10 Tips for Report Writers* is designed for practitioners and researchers in the field who present study results to online learning stakeholders. This resource captures the key elements inherent to strong research study reports and articulates standards of quality that authors can refer to when developing reports.

We welcome your feedback on these tips. Please email ecresearchunit@oregonstate.edu with your comments and suggestions for future iterations.

# Contents

# 1

## Know your audience

Before writing a report, it can be helpful to think about who may benefit from the research findings offered so you can tailor the report to the needs of these readers. Most reports will be read by primary and secondary readers. Primary readers include the key stakeholders who will apply your research, and secondary readers include everyone else who may be interested in your report.

While reader type (primary and secondary) will vary depending on the nature and content of the report, reports should be designed for the specific audience(s) for which the research is intended. Considerations include the tone and voice the report is written in as well as the level of detail that is included in each section of the report. For example, describe statistical analyses in a way that the intended audience(s) can understand and avoid using technical language without providing definitions or syntheses of the processes described. If any aspect of your report (e.g., writing style, level of detail, wording, layout) makes it difficult for your audience(s) to read and comprehend your study results, then your research may not be received as well as you intended.

# 2

## Describe the larger purpose

It is important for a reader to understand why a study was conducted, what the study attempted to accomplish, why the research is important to the field and how the results could be used. Therefore, research reports should include each of these relevant background informational pieces. This includes the context within which the study is conducted, such as how the study relates to past research and understanding of the topic(s) at hand, a rationale for why the study was conducted and relevant definitions.

One key facet is showcasing the theories, or theoretical frameworks, that inform a study. If theoretical frameworks are included in the report, explain them in appropriate detail. Ensure your readers understand the basic theoretical framework presented regardless of prior knowledge. If the study is based in theory, describe it and clarify how the theory relates to the main focus of the study.

In addition to communicating the larger purpose, it is important to define the concepts, terms and acronyms that are used in the study so that a reader with no prior experience can better understand the study aims and context.

# 3

## Be transparent about intentions, purpose and findings

Research reports in the field of online education may include collaborations with industry partners, associations or foundations. If your study was conducted in whole, or in part, by vendors or companies, or as part of a market research campaign, this should be made clear for the reader. This eliminates speculation about an author's conflict of interest regarding the study results. Be clear what role other entities played in funding the study, developing the study design, supporting participant recruitment, analyzing data, writing up results and disseminating the results.

Sharing the study's original research questions is one way to be transparent about intentions and purpose. State the research questions and organize your report to align with these original research questions.

For reports with quantitative data, you can also consider including the frequency tables for readers to reference either in the report appendix or as a supplementary online resource. This will allow readers to verify the study findings or refer to the original data if they have questions about how a particular result was calculated. Providing the data tables also allows other researchers to build off of the original dataset.

# 4

## Include a methodology section

It is the report writer's job to help others understand how the research was conducted. State how participants were recruited, how data was collected and how data was analyzed. This information can be included in one section of the report or as a methodology appendix.

If the quantitative data analysis includes statistical testing, describe the statistical tests used to formulate the study results. Readers need to be told what statistical tests were used on which variables. This allows them to determine if the statistical analyses were appropriate for the data type and research questions. This description might occur as the data is being presented or in a section of the report detailing the methodology used to collect and analyze the data.

It is also important to illustrate how conclusions were drawn from qualitative data. Coding is one mechanism through which researchers look for patterns in the data to draw conclusions. When appropriate, a description of the coding procedure is an important element of the study methodology.

# 5

## Report the "N"

Whenever data is described, reports should detail the total number of respondents or responses, sample sizes (n) as well as the total population (N), if this number is known. Provide research study percentages within the context of the total n. Similarly, report the total n that is being displayed in graphs and tables. Including the n is important for the interpretation of the data. For example, if the results show 80 percent of respondents chose one answer over another, it is important to know how many individuals this represents.

Lastly, include information about missing data. This can be done when the overall sample is described (perhaps missing data resulted in one or more participant's data being excluded in the study analysis). Missing data can also be described at various points throughout the report when study results are shared for individual survey items. An example is noting missing data as a category in a graph or table.

# 6

## Describe and contextualize data

When presenting results in a report, it is important to be clear how you arrived at the result and how it fits with the study's purpose. Additionally, describing where the data originated from and how the data relates to other aspects of the research (i.e., a research question identified earlier in the paper) is helpful for readers. It can be problematic when data is provided without context because readers can have difficulty understanding how the data relates to the overall findings.

It can also be helpful to provide any instruments (such as surveys) or protocols (such as interview or focus group questions). These materials can help readers understand the scope of the research design and see the full picture of what was asked of research participants, including question wording and question order. If any data gathered are not being reported in the study findings, the report should detail why the particular results were not reported. Sometimes it is as simple as explaining that the research report focuses on one aspect of a larger study and detailing why this focus is compelling for researchers.

Readers need a description of how the data were analyzed in order to fully understand the results. In quantitative studies, if you calculated variables, be sure to explain those calculations and provide original data sources. Consider providing frequency data in the report appendices for full transparency.

# 7

## Visualize the data

Choosing the appropriate chart or graph type is essential to visualizing data. Data visualizations help the reader understand how the data points relate to one another and to the study aims. If they are confusing or hard to understand, then they will not be effective in communicating results.

Appropriate data visualizations account for size, range and scale so that numbers are represented accurately. When designing data visualizations, pay attention to whether the numbers add up correctly (e.g., a pie chart should add up to 100 percent). Also, make sure the scales on data visualizations are appropriate. For example, if the data range is 0–100, make sure the axis of a graph starts at 0 and ends at 100. Showing the appropriate scale for data visualizations can clarify the relationship between data points and ensure that results will not be exaggerated, distorted or confusing.

Good data visualization will not only visually present the data offered in text form, but will also add something to the reader's understanding of the data. Examples include representing trends or changes over time, or sharing a lot of data in a concentrated amount of space so that various elements of data can be compared with one another.

# 8

## Consider length

If a report seems to be excessively long, then maybe the study results could be broken into more than one report. On the other hand, shorter reports do not always provide the level of detail needed to fully understand a study and its results. For this criterion, consider if the report is too long, too short or just right.

Including an executive summary and/or abstract assists readers in digesting study findings. An executive summary and/or abstract allows you to communicate what the big takeaways or findings are for the study; it also helps to clarify the main findings of the report for you as a writer, as well as for report readers. Be careful to only include aspects of the study that directly relate to the research questions or particularly interesting findings. The executive summary is not identical to the findings section or any data visualizations, but is rather a succinct detailing of the research.

# 9

## Carefully consider language

It is important that the takeaways of the report are very clear, as readers often use reports to make evidence-based decisions. For example, readers can experience confusion as to whether results are correlational or causal, which may impact decisions based on the data. To ensure that claims and discussions are within the scope of the data presented, avoid making inferences from the data that are not supported by the study results. If you are placing the study results in context with other scholarship in the field, make sure to include the appropriate citations so readers can seek other literature if they wish to do so.

# 10

## Make reports readable and accessible

The Americans with Disabilities Act (ADA) requirements include standards to ensure that documents are accessible for all readers, including those with print and sensory disabilities. Refer to these standards to ensure your documents are formatted for screen readability for those who are blind or who need assistive technology in order to read virtual documents.

Make sure the different elements of a report, from the description of the research to the findings and analysis, are understandable to the average reader. Do not rely too heavily on jargon, especially if definitions of words are not provided for the reader. A glossary defining key words can be included as a helpful resource.

You will also want to ensure the report is relatively easy to find via a web browser and simple to download online so that readers can find and cite your work.

## The Report Reader Checklist

As we created this *10 Tips for Report Writers* resource, we also saw a need to assist report readers in identifying the components of a quality report. The *Report Reader Checklist* is a comprehensive set of criteria that offers readers a guide to evaluate the quality and rigor of the online education study reports that they may encounter in their work.

The checklist is divided into six main areas:

1. Context
2. Methodology
3. Sample
4. Reporting Results
5. Transparency
6. Reader Experience

We have created a supplemental website with additional content and examples related to *The Report Reader Checklist* (as well as the checklist itself) for users to explore.

Learn more about this resource at: ecampus.oregonstate.edu/checklist

# Editorial board

The OSU Ecampus Research Unit would like to thank the following individuals for providing feedback on this document:

## About the Oregon State University Ecampus Research Unit

The Oregon State Ecampus Research Unit makes research actionable through the creation of evidence-based resources related to effective online teaching, learning and program administration. Learn more at ecampus.oregonstate.edu/research.


## About Oregon State University Ecampus

Through comprehensive online degree programs and courses, Oregon State Ecampus provides students with access to a high-quality OSU education no matter where they live. Ecampus delivers more than 50 undergraduate and graduate programs and over 1,200 classes online to learners around the world. Oregon State is consistently ranked among the nation's best providers of online education. Learn more about OSU degrees online at ecampus.oregonstate.edu.

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