

13. REPORTING RESULTS AND ENGAGING IN SCHOLARLY DISCUSSION

By Patricia Morris

The results section or chapter of a thesis or a paper, sometimes referred to as the findings section, is where you present the findings of your study; while the discussion chapter or section, sometimes referred to as the conclusion section, is where you engage your results with your literature review and the larger scholarly community. Results chapters should be a summary of your data, but this section will be different depending on whether you are doing quantitative or qualitative research.

QUALITATIVE RESULTS REPORTING

For quantitative projects, you will typically want to give the reader a narrative detailing your descriptive and inferential statistics, but you might also consider the use of relevant tables and/or charts to summarize the results of your most important statistical calculations. Generally, test statistics and p values should be rounded to two decimal places and statistical symbols that are not Greek letters are commonly italicized (*M*, *SD*, *t*, *p*, etc.).

There are two ways to report p values. One way is to use the alpha level (the criterion for the probability of falsely rejecting your null hypothesis), which is typically .05 or .01. Example: $F = 44.4$, $p < .01$ or you simply indicate statistical significance with an asterisk in your chart. You may also report the exact p value. For example: $t = 2.10$, $p = .03$. If your

exact p value is less than .001, it is conventional to state merely $p < .001$. If your p-value is .10 or less, you can say your results were marginally significant. For example, you can write:

Results from an independent samples t test indicated those who take the bible as the "literal word of God" attend church marginally more often ($M = 3.45$, $SD = 1.11$) than those who see the bible as a "book of fables" ($M = 3.00$, $SD = .80$), $t = 1.25$, $p = .08$.

In reporting the results of statistical tests, report the descriptive statistics, such as means and standard deviations, as well as the test statistic, obtained value of the test, and the probability of the result occurring by chance (p value). See the following examples:

Independent Samples T-Test: Respondents without children were found to have more poor mental health days on average ($M = 4.11$) than respondents with children ($M = 3.32$). Evidence from an independent samples t test suggests that the difference in poor mental health days between those with children and those without children was statistically significant ($t = 1.983$, $p = .048$). Thus, data from this study supports a relationship between parenthood and mental health.

ANOVA: A one-way ANOVA test revealed a statistically significant relationship between marital status and mental health ($F = 7.272, p < .001$), with average poor mental health days in a month among those participants who were married ($M = 2.54, SD = 5.54$), single ($M = 4.25, SD = 7.14$), divorced ($M = 4.54, SD = 8.36$), separated ($M = 3.33, SD = 7.35$), and widowed ($M = 5.79, SD = 9.64$). After performing a post-hoc test, results suggest statistically significant differences in average poor mental health levels between married and widowed ($p = .009$), married and divorced ($p = .001$), married and never married ($p = .001$), but there were no other significant differences in mental health levels between any of the other groups.

Chi-Square: A chi-square test indicated that there was not a statistically significant association between social class and attitudes towards sex education (Pearson Chi-square = .608, $p = .436$). The analysis revealed little difference between various social classes in terms of attitudes towards sex education, with 89% of working-class people favoring sex education in public schools and a similar 92% of working class, 92% of middle class, and 90% of upper class favoring sex education in schools. In other words, our sample data shows similarly strong support for sex education in public schools regardless of a person's social class status.

Regression: Multiple Regression results are best reported in charts. If you would like to report the regression in the text of your results section, you should at least present the standardized slope (beta) along with the t-test and the corresponding significance level. It is also customary to report the percentage of variance explained along with the corresponding F test. Social support significantly predicted depression scores, $b = -.34, t = 6.53, p < .01$. Social support also

explained a significant proportion of variance in depression scores, $R^2 = .12, F = 42.64, p < .01$.

Assume your audience has a professional knowledge of statistics and do not explain how or why you used a certain test unless it is unusual and/or warrants explanation because you are violating some assumption of the test. There is simply no need to write, "I used an independent samples t-test because my independent variable was dichotomous (research vs. control group) and my dependent variable was scale (number of drinks a person consumes) so I chose this test to determine if the differences between the two groups were statistically significant." Similarly, a discussion of whether you reject the null hypothesis is not necessary or typically done in professional papers. Instead, you would simply indicate if you found statistically significant support for your research hypothesis or not. For example, you wouldn't say we rejected the null, but rather "We found support for our hypothesis that group size affects drinking behavior in that participants drank significantly fewer drinks in the experimental group ($M = 0.667, SD = 1.15$) than did those in the control group ($M = 8.00, SD = 2.00$), $t = -5.51, p = .005$."

Quantitative results should be presented in an informative way that tell the story of your findings without bogging the reader down in unnecessary detail. For example, you would not want to include long lists of raw data rarely or frequency tables on every variable. Demographic data that describe the sample are usually presented first. Highlight the important trends and remind the reader of the research questions being addressed, or the hypothesis being tested (that you outlined in the literature review, introduction, or the methods section of the paper). Indicate whether the hypothesis is supported or not as described above.

QUALITATIVE RESULTS REPORTING

For simplification sake in explaining the basic differences in reporting results, I will dichotomize quantitative and qualitative approaches to social research into those that use statistics to draw conclusions and those that do not base their findings primarily on statistical analysis. Broadly speaking, the qualitative researcher is interested in understanding why those being studied think, feel, and act the way they do. Thus, in the results section of a qualitative thesis, people, places and setting are usually described in detail, with rich text replacing the numbers used in quantitative research as described above. The data itself usually consists of words, from written documents or interview transcripts (but may include images), which have been analyzed in some way, often into themes. Typically, the volume of qualitative data results in a large quantity of written material, through which you must guide your reader. When we read and evaluate a qualitative research paper, the presentation of results is central for the reader to determine for themselves if this is a scientifically robust, well-grounded study. You have done an extensive analysis of the data, but you must shift through the massive amounts of data that you likely have, pull out the most salient messages, and tell a coherent story.

You want your analysis to be more than just a collection of anecdotes strung together. Structure is therefore very important. Try to make your sections and subsections reflect the themes that have emerged from your analysis of the data, and to make sure your reader knows how these themes evolved. Headings and subheadings, as well as directions to the reader, are forms of signposting you can use to make these subchapters easy to navigate. For an example of what I mean by this, please refer to my article “Managing Pet Owners Guilt and Grief in Veterinary Euthanasia

Encounters” (Morris 2012). Notice that I first set up a section explaining how pet owners often experience guilt and grief before I get into all the different ways in which veterinarians deal with or manage those emotions in their client when they become problematic. I decided to do two separate sections to explain what I found regarding the two different emotion managements and conclude the results section with an unexpected theme that emerged in the data, the socioemotional exchange between veterinarians and their clients.

Similarly, you want to walk the reader through your findings in an efficient and organized manner, telling the reader a coherent story. The reporting of qualitative data is much less bound by convention than that of quantitative data, but in reporting the data, it is generally important to convey both the themes and some of the flavor of the actual words and, to accomplish this, you will need to cut lengthy narratives into digestible soundbites that make your point. Although it is often difficult to present qualitative data in tables in figures, sometimes this is the better way to go especially when you are explaining a typology you have created. For example, see page 353 of my article (Morris 2012) where I used one table to list a typology of concepts, give a short conceptualization or definition, and then provide an example from my data. This pattern works great outside of the table format as well. Individual data extracts can be connected back into this structure through a process of “tell-show-tell” where you set up your point, give examples, and summarize your analysis of that point. The data needs to be connected back through the layers of detail to the overarching research question it relates to. This can also be done through the introductions to carefully structured sections and subsections. Remember, you should not just list quotes, but carefully weave them into the narrative setting them up with your own words.

WRITING THE DISCUSSION OR CONCLUSION CHAPTER

Discussion chapters outline the implications of your findings by linking your results to the key research that you described in your literature review. First, outline what conclusions you can draw from your research as they relate to what you originally proposed to find out. Given your background research, did you find what you expected to find or were your results surprising? Were you able to achieve what you outlined in the introduction and methods section? What else do your findings tell you, over and above you initially set out to investigate?

You might have a section that outlines the strengths and weaknesses of this method in addressing your overall question. You might take this time to explain the difference between expected and obtained results and suggest what might have caused those differences (e.g. smaller than ideal sample sizes or less than ideal sampling techniques or limited time). You could detail any theories you have for why you see some anomaly in your observations or if something in your data points to a possible explanation as to why you might not have gotten the results you expected find.

Next, it is essential to show how your results fit in with other work that has been done in your field. Here, you will want to include a good deal of citations as you indicate the meaning of the results of your study and compare your findings to the findings of others that you detailed in your literature review. Based on previous research, is this what you expected to find? Why or why not? Point out the agreements and disagreement between your data and that of others. In presenting your own interpretations of the results, consider the strengths and weaknesses of alternative interpretations from the literature.

What implications does your findings have for other researchers, for current theory, for public policy, for technical applications, or professional practice? Were you able to answer all of your questions to your satisfaction? Are there new questions that your research uncovered? If you are doing a quantitative project, for example, you might include a discussion of any problems you encountered conceptualizing and/or operationalizing your variables. In other words, you might discuss any potential problems you faced regarding validity or reliability and if you learned anything about how future research could address these problems. Whether you are doing quantitative or qualitative research, this section is a great place to give the reader suggestions for further research driven by your findings.

Finally, I will say that the most important thing you can do in learning how to write good results and discussion sections is to investigate the conventions of our discipline by looking at scholarly, empirical articles in sociology journals. For an example of each of the topics I discussed in the writing a conclusion section, please refer to pages 358-361 in my article "Managing Pet Owners Guilt and Grief in Veterinary Euthanasia Encounters" (Morris 2012). Go through your collection of literature review articles and pick your top three or four favorites that you thought were informative to your topic of interest and that were easy or pleasant to read. Now, re-read these articles, not for their content as you did originally, but for their structure and use this information to model your own writing.

WORKS CITED

Morris, Patricia. 2012. "Managing Pet Owners' Guilt and Grief in Veterinary Euthanasia Encounters." *Journal of Contemporary Ethnography* 41(3): 337-365.

14. REVISING AND EDITING

By Todd Migliaccio

“I've found the best way to revise your own work is to pretend that somebody else wrote it and then to rip the living shit out of it..”

–Don Roff, writer

REVISING AND EDITING ARE NOT FOUR LETTER WORDS

While many of us may feel as though we are being punished by having to revise or edit our paper or written work, and that “edit” is a bad word; it is not. We all have to do it. By using my own experiences revising my writing, I hope to convey in this chapter a personal experience that will help you to develop an affinity for the process of revising and editing. This process of revising and editing, by the way, includes all components of your paper—from the introduction (including the paper’s title) to the conclusion. For example, for this chapter, through my revising, I changed the quote presented at the beginning. I chose a quote that would be more likely to “grab” your attention (as discussed in Dr. Sarabia’s chapter on “The Importance of Introductions” in this Manual). In order to grab your attention, I decided to remove a quote by Stephen King, a much more established and famous author, for a quote from a writer not as well-known, but (and I think you can agree) a “catchier” quote.

The introduction, as Dr. Sarabia discusses in her chapter, does not end in a quote. Therefore, I had to make sure that I engaged you throughout, while clearly introducing the topic of the paper. So, I chose to break the “third wall” of prose and discuss the revision of this article.

In a sense, by using the engagement of a “personal anecdote” (see Sarabia in this Manual) that I hope to further explain the process of revising and editing. Initially, this is what I had written:

Revising your paper is an important part of writing. We all undergo it and experience it. It does not reflect on your writing ability overall. It is something that is simply part of the writing process.

As you can see, it changed from a direct, albeit clear statement about the focus of the paper, to what you are presently reading (a little meta, I get it, but hopefully you are seeing my point). What you should also know is that the introduction, a commonly revised section of a paper, is often revised when you finish the rest of the paper. This means you feel confident about the body and conclusion of the paper, so you revisit the introduction to make sure it matches, and many times it doesn’t because as you revise the main ideas and pieces of evidence of the paper, it can change. I share this just so you know that is normal and okay to do.

So I made some revisions (including after the rest of the paper was completed), and here you are, still reading. Essentially, I have been able to keep you interested, while also introducing two key issues pertaining to revision and editing: