

RESEARCH IN BUSINESS

Module 3: Presenting Your Research

The goal of business research is an answer to a question. The previous modules have covered defining the question and designing a method for answering the question. This module will explore how to present the results of your research and the analysis of those results, which will lead to an answer to your research problem.

When writing about results you will **describe** the results, **analyze** or **interpret** the results, and finally **draw conclusions** about those results. This module will explore how to describe and analyze the results, and Module 4 will look at how to defend your conclusions.

Information to Provide

When presenting research results, you should not present and explain every possible data point but instead present the **relevant** data. To decide what qualifies as relevant data, return to your audience, purpose, and research question and map out what information you will need in order to show what results occurred from the research and what these results mean for the research question.

Data needs interpretation. Presenting research results includes both describing the results and explaining their significance. You will highlight particular data points of interest and also discuss why they are important. Your discussion should tie the data back to your research question and show how the data answers that question.

Organization of Information

As with any writing, you should organize your results and analysis in a coherent manner so that important points are more quickly grasped. This section discusses various aspects of organizing information.

Sections of the Research Paper

Business research frequently uses the Results-Conclusion-Recommendations model to lay out the discussion and analysis of the findings. (In contrast, science and engineering fields often use Results-Discussion-Conclusion.) Each section helps to answer a particular question:

Results	<i>What did you see?</i>
Conclusion	<i>What does it mean?</i>
Recommendations	<i>What should we do?</i>

Notice that the interpretation of results happens in a separate section, the conclusion. This distinction in function between the two sections is subtle. Here is an example of the differences in emphasis.

Results *Based on the reported online shopper ages and preferred retailers, a significant relationship was found between age group and preferred store, $\chi^2 (15, N=168) = 31.4, p<0.01$.*

Conclusion *The findings showed that age is a significant factor in the types of stores visited. Therefore different age groups will be more likely to want promotional items from a store they frequent.*

Organizational Patterns

Below are some ways of viewing your results and discussion and organizing those sections for writing.

- Trends
- Magnitude of values
- Associations
- Patterns of statistical significance
- Exceptions

Having a pattern of discussion helps reader to grasp the relationship and significance of ideas.

Graphics

Graphics are an important element of business research writing. You should learn how to create effective graphics and how to use them correctly to make your writing stronger. Graphics include tables, charts, graphs, pictures, and diagrams.

Functions of Graphics

Graphics make it easier and faster for readers to understand the information in the following ways:

- Demonstrate logical and numerical relationships
- Describe steps
- Save space otherwise used by long blocks of text
- Create visual interest
- Communicate spatial information
- Reduce costs linked to translation of blocks of text

Use graphics only when they are more effective than text. Do not include a graphic just for the sake of a graphic.

Characteristics of Effective Graphics

For graphics to function effectively, they must be designed effectively. Consider the following characteristics of effective graphics:

- Serve a purpose (*i.e.*, not just look pretty)
- Be simple and uncluttered
- Present a manageable amount of information
- Meet readers' format expectations
- Be labeled clearly
- Use consistent terms and fonts among all graphics

Citing a Graphic

If you use a graphic or information from another source, you must give credit to that source because it is information that is taken directly from another, not your own primary research. A citation should be placed immediately under the graphic in small print (8-10 pt. font) and should be structured as follows:

Structure: [Graphic] from/adapted from *Source Title*, ed., YYYY, F. Last Name, pp. XX-XX.

Examples: Research Process flowchart adapted from *Technical Communication*, 10 ed., 2012, M. Markel, pp. 120-122
Source: U.S. Census Bureau, 2012.

Your organization or professor may prefer a different format for source information.

Text and Graphics

When writing, you should pose the following question: *What is the best way to present my information?* Both text and graphics are useful and should be included in your results and discussion. As discussed above, graphics help to break up the visual space and are an effective means of communicating information. Text is necessary to explain the information more fully and to highlight significant data. Having just one or the other makes for information that is harder to read and understand, but having a balance of the two communicates your ideas much more effectively.

When incorporating a graphic into a text, you should always

- Place the graphic in an appropriate location near the corresponding text,
- Label the graphic and refer to it in the text, and
- Explain what the graphic shows.

If a graphic does not have immediate relevance to the text, or covers too many pages and would disrupt the flow of the text, place the graphic in an appendix and then refer to the appendix in the text.

You should always describe (even briefly) and explain what a graphic illustrates. Highlighting key information from the graphic helps to ground the graphic into the research narrative.

Ethical Considerations

Always tell the truth about your findings and represent your findings accurately, even if they are inexplicable or oppose your hypothesis. By doing so, you uphold professionalism and credibility—for you, for your research, and for your organization. Honest results also show the complexity of a situation, which is real; a simple answer is rarely realistic. Results that are not perfectly aligned with expectations or hypotheses also leave room for discussion, which can be valuable in deepening the knowledge for that area.

Being honest in your results means doing the following:

- **Include all relevant data, and do not hide data.**
Do not hide data points that you cannot explain or that do not fit into your desired model. Outliers or unexpected results must be included.

- **Show items and quantities as they are; no manipulation or misrepresentation.**

Magazines are known for digitally altering models' bodies. Likewise, tweaking an axis to alter the perceived scale or range, not indicating a difference in relative size between research groups (*e.g.*, $n=100$ for both groups, but one group has a population of 200 and the other a population of 1,000), or indicating a commonality where none exists can also be considered manipulation or misrepresentation of data.

Resources

American Psychological Association (APA). (2010). *Publication manual of the American Psychological Association*, 6 ed. Washington, DC: APA.

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Klass, G. (2002). "Creating good charts," in *Just plain data analysis*. Retrieved from <http://lilt.ilstu.edu/gmklass/pos138/datadisplay/sections/goodcharts.htm>

Klass, G. (2011). *Just plain data analysis*. Retrieved from <http://cas.illinoisstate.edu/jpda/>

Lehman, C. and DuFrene, D. (2013). *BCOM4*, Student edition. Mason, OH: South-Western, Cengage Learning.

Markel, M. (2012). *Technical communication*, 10th ed. Boston, MA: Bedford/St. Martin's.

Straight, N. (2012). *Statistical reporting supplement to the MBA mandatory writing guide*.