

# Top 10 Common Mistakes in Table and Figure Formatting and How to Avoid Them



By: Manpreet Kaur at Elite Research LLC



# Introduction

In medical and health research, tables and figures play a crucial role in presenting data, illustrating findings, and enhancing the clarity of a research document. Improper formatting can lead to confusion, misinterpretation, and a loss of credibility. Researchers must be aware of common mistakes that can occur when creating tables and figures, as well as how to avoid them. This article outlines the top ten common mistakes in table and figure formatting and provides ways to avoid them.

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## Common Mistakes and Solutions

- 1. Inconsistent Title Formatting** - One of the most common mistakes in table and figure formatting is inconsistent title formatting. A title is essential because it gives context to the data and tells the reader what to expect. If the title formatting varies between tables and figures or if the titles are unclear, the reader may struggle to understand the information presented. Properly formatted titles should be concise, descriptive, and standardized throughout the document.
  - **Solution:** Ensure consistency by following the appropriate style guidelines, such as the APA style. Titles

for tables should be placed above the table, while titles for figures should be placed below.<sup>1</sup> Both titles should be clear, descriptive, and free of unnecessary abbreviations.

- 2. Lack of Clear Labels and Legends** - Another frequent issue is the absence of clear labels and legends. Labels are essential for identifying the variables being presented, while legends explain symbols, colors, or other elements used in figures. Without these, readers may find it difficult to understand what the data represent.
  - **Solution:** Always include clear and concise labels for columns, rows, axes, and variables in figures. Additionally, provide a legend for any symbols or colors used to distinguish categories or groups. Ensure that the labels are consistent and standardized across all figures and tables.
- 3. Overcrowding the Table or Figure** - Overcrowding a table or figure with too much information can overwhelm the reader and obscure the key findings. Excessive data presented in a single table or figure can confuse the audience and make it difficult to extract the most important points.
  - **Solution:** When designing tables and figures, prioritize simplicity and clarity. Limit the number of data points, and break up large tables into smaller, more manageable sections if necessary. Avoid displaying excessive

<sup>1</sup>American Psychological Association. (2020). *Publication manual of the American Psychological Association* (7th ed.). APA.

categories or subgroups that are not directly relevant to the research question.

#### 4. Inconsistent Font and Text Size -

Inconsistent font styles and text sizes in tables and figures can create a disjointed look and decrease the overall professionalism of the document. Using too many different fonts or font sizes can confuse readers and detract from the clarity of the information.

- **Solution:** Choose a consistent font and size for all text in tables and figures. It is recommended to use a legible font, such as Times New Roman, in a size that ensures readability.<sup>2</sup> Ensure that headings, subheadings, and body text follow a consistent hierarchy and size.

#### 5. Misleading Use of Colors or Patterns -

The use of colors and patterns in tables and figures can sometimes lead to misinterpretation. Colors that are too similar may be difficult to distinguish, and unnecessary patterns might distract the reader from the essential data.

- **Solution:** Choose contrasting colors that are easily distinguishable and avoid using too many different colors or patterns. It is also important to consider color blindness and ensure that the data are still interpretable in black and white or with color-deficient viewing.

#### 6. Incorrect Use of Units and Abbreviations -

The incorrect use of units and abbreviations can lead to confusion and

misinterpretation of data. Failing to include appropriate units of measurement or using unfamiliar abbreviations without definitions can leave readers unsure about the significance of the data.

- **Solution:** Always use standard units of measurement and ensure that abbreviations are defined upon first use. In figures, abbreviations should be spelled out the first time they appear, and abbreviations that are not commonly known should be avoided.

#### 7. Failure to Include Data Sources or References -

Tables and figures should always indicate where the data originated, especially when the data come from other studies or external sources. Failure to cite sources can undermine the credibility of the research and create confusion about the validity of the data.

- **Solution:** Include full citations or references for all data sources used in tables and figures. If applicable, also provide a note in the figure or table caption to clarify the methodology or calculation used to obtain the data.

#### 8. Incorrect or Missing Statistical Information -

Statistical significance is often key to interpreting results. Missing or incorrect statistical information, such as p-values, confidence intervals, or standard deviations, can lead to misinterpretation of the findings.

- **Solution:** Ensure that all relevant statistical information is clearly

<sup>2</sup> American Psychological Association. (2020). *Publication manual of the American Psychological Association* (7th ed.). APA.

presented in the table or figure. For tables, this might include p-values, confidence intervals, and effect sizes. In figures, statistical annotations should be included, and a legend should explain the meaning of these annotations.

**9. Improper Data Grouping** - Improper grouping of data in tables or figures can create misleading conclusions. Grouping data by irrelevant categories or failing to account for potential confounding factors can distort the results.

- **Solution:** Group data logically based on the research question and ensure that groupings are meaningful. When appropriate, data should be stratified according to relevant to provide clearer insights into the effects of these variables.

**10. Lack of Clarity in Data Presentation** - Data should be presented in a way that is easy to interpret. When the data is not presented clearly or logically, it can lead

to confusion and difficulty in drawing conclusions. This includes having too many decimal places, misaligned text, or unclear data formatting.

**Solution:** Avoid unnecessary precision and use consistent decimal places throughout the document. Align text and numbers properly to maintain a clean and organized appearance. Ensure that the data can be interpreted quickly and easily by the reader.

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## Conclusion

Tables and figures are indispensable tools for communicating complex data. However, errors in formatting can compromise the clarity and reliability of the research findings. By being mindful of common mistakes, such as inconsistent title formatting, lack of labels, overcrowding, misleading use of colors, and failure to include statistical information, researchers can significantly improve the presentation of their data.

# Take Away

This article discussed challenges that can occur when formatting tables and figures in papers and communications. Implementing best practices for table and figure formatting enhances the professionalism of research documents and also ensures that the information is accessible and interpretable for readers.

## About the Author

Manpreet Kaur, MA. Qualitative Data Analyst at Elite Research, brings extensive experience in qualitative research methods, coding, and analysis. With expertise in project management and data analysis, she enhances understanding across diverse domains. Collaborating with researchers, organizations, and communities, she shapes qualitative research using techniques like interviews and focus groups. Holding Masters degrees in Sociology and Medical Anthropology from Case Western Reserve University, she's dedicated to applying social science research to address global issues in modern day society. In her role, she ensures accurate data analysis, contributing to community and organizational development and advancement.



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1.800.806.5661  
9901 E. Valley Ranch Pkwy, Suite 2035, Irving, TX 75063



consulting@eliteresearch.com  
[www.eliteresearch.com](http://www.eliteresearch.com)