

Example for using RMarkdown to create scientific manuscripts

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Abstract

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Contents

Analysis	1
Show your graphs	2
Report your stats	2
Your fancy formulas	2
Tables	3
Writing your text and cite	3
References	3

Analysis

Use `r` chunks for your analysis and use the results later.

Show your graphs

You add nicely rendered graphs to your text. For that it is important to specify that you want the respected chunk to be included but not echoed.

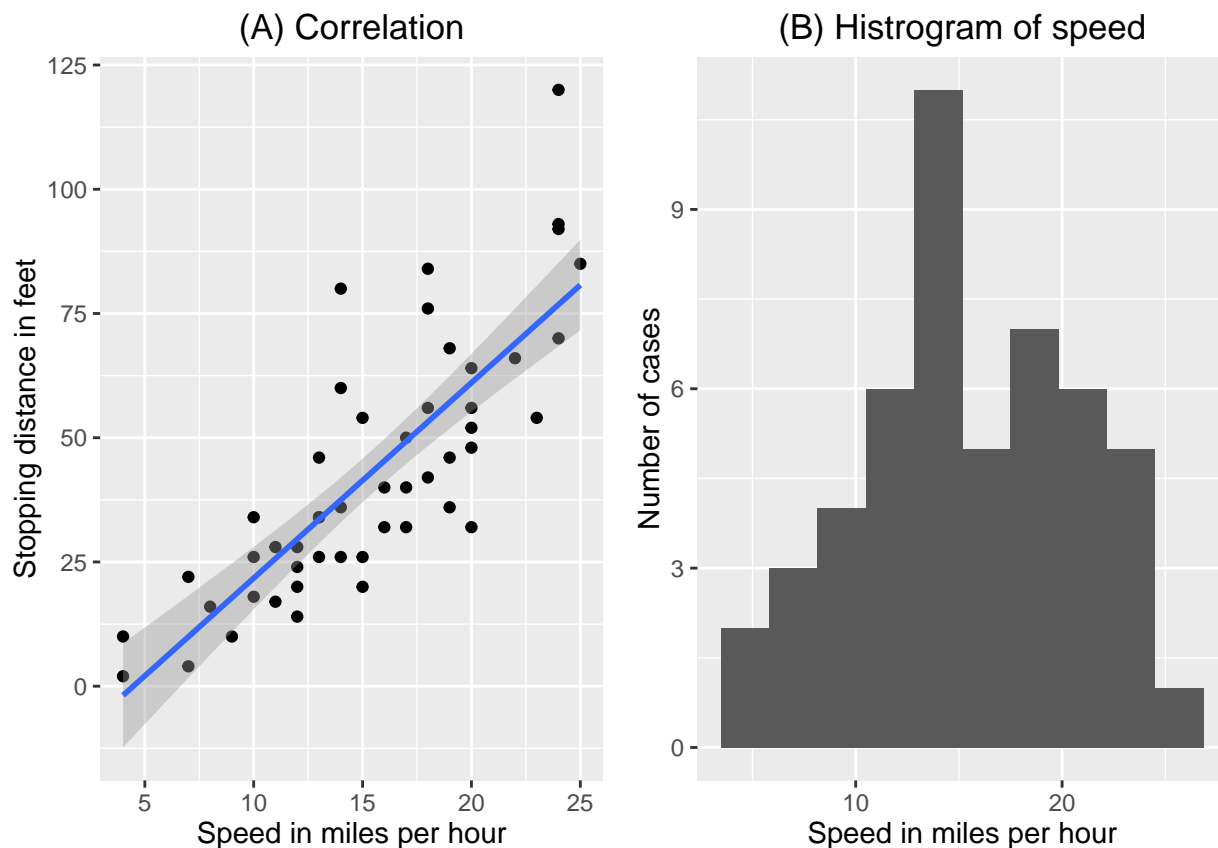


Figure 1: (A) Correlation. There is a significant correlation between the speed of a car and the distance it needs to stop, $r = .807$, $p < .001$. (B) Histogram.

Report your stats

The loaded example data contain the speed of cars and the distances taken to stop. The correlation between these two variables is significant, $r = .807$, $p < .001$.

Your fancy formulas

You are able to create fancy formulars by innserting LaTeX bits surrounded by \$ signs. Today, we will use a correlation:

$$r = \frac{\Sigma(x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\Sigma(x_i - \bar{x})^2 \Sigma(y_i - \bar{y})^2}}$$

Tables

With RMarkdown you are also able to produce your tables.

Table 1: This is table.

Condition	Parameter 1	Parameter 2	Parameter 3
Control	3.19 (0.31)	3.89 (0.33)	3.68 (0.8)
Intervention	3.86 (0.41)	3.38 (0.53)	3.01 (0.69)

Writing your text and cite

The nice thing about RMarkdown is that you can write the whole manuscript with that includes using citations. You can have the standard way of citing at the end of a sentence (Quent, 2017a, 2017b). As Quent (2017a) shows, you can also have it that way. Most reference management software (e.g. Zotero or Mendeley) allow you to export the references in BibTeX format. In this case, the references are saved in BibTeX format in the references.bib file.

References

Quent, J. A. (2017a). This is a title. *Made up journal*, 1(1), 1–2.

Quent, J. A. (2017b). This is another title. *Proceedings in the world of fantasy*, 3(10), 44–99.