Example for using RMarkdown to create scientific manuscripts

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December 04, 2017

Abstract

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Contents

Analysis

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

Show your graphs

You can directly render your figures alongside your text. For that it is important to specify that you want the respected chunk to be included but not echoed as well as to provide the name of the string that contains the figure captions.
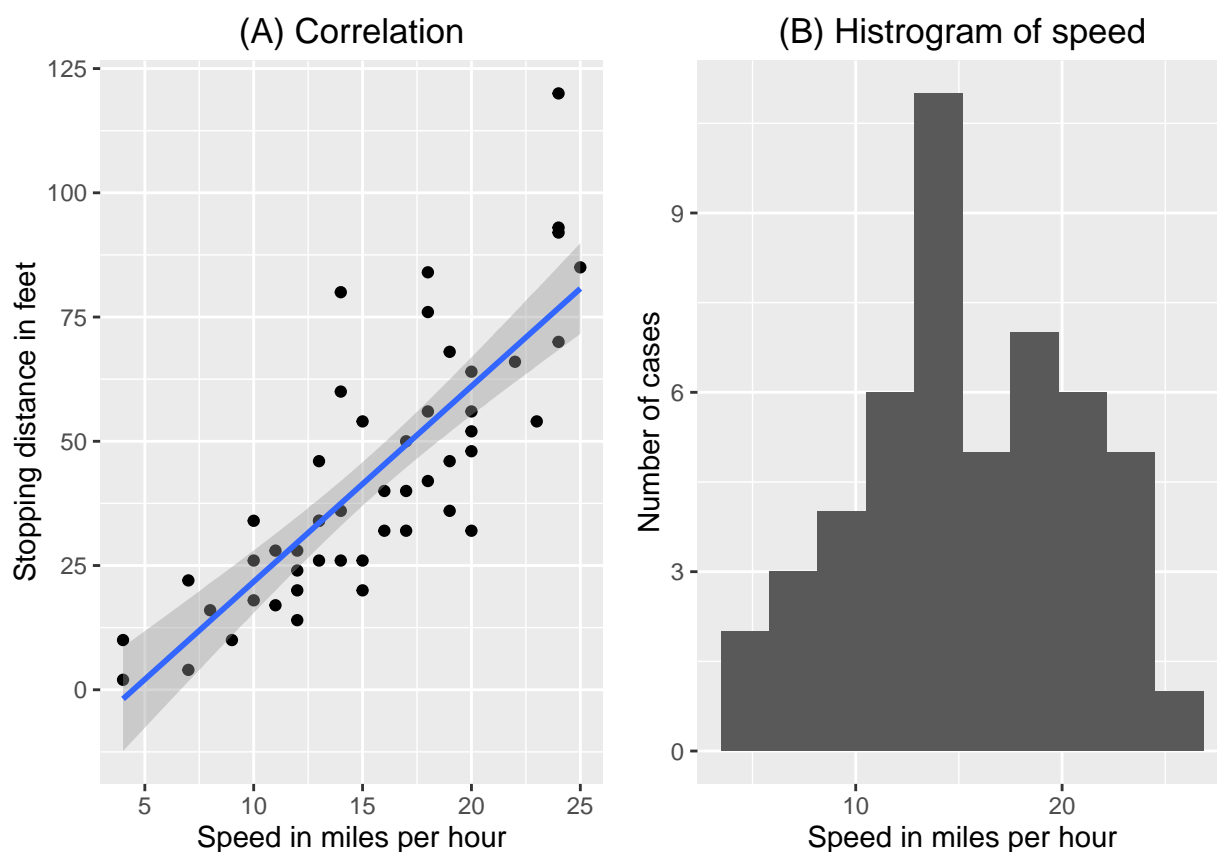

Figure 1: (A) Correlation. There is a significant correlation between the speed of a car and the distance it needs to stop, $r = .807$, $p < .001$. (B) Histogram.

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 formulas by inserting LaTex bits surrounded by $$ signs, but also your favourite greek symbol (e.g. α). Here is an example:

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

Tables

With RMarkdown you are also able to produce your tables.

Table 1: This is table.

Condition	Parameter 1	Parameter 2	Parameter 3
Control	3.65 (0.98)	3.85 (0.54)	3.8 (0.69)
Intervention	3.78 (0.56)	3.64 (0.77)	3.38 (0.47)

Writing your text and cite

The nice thing about RMarkdown is that you can write the whole manuscript with that includes the citations. You can use the standard way of citing in round brackets (Quent, 2017a, 2017b) or as Quent (2017a) shows, you can use the name of the author in your sentence. Most reference management software (e.g. Zotero or Mendeley) allow you to export the refereneces in BibTeX format. The references in this manuscript are saved in BibTeX format in the file called references.bib.

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.