# A template for writing manuscripts in Rmarkdown

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Write your abstract here.

*Keywords*: Rmarkdown, reproducible science

# INTRODUCTION

Write your introduction here.

You can **cite bibliography** like this (Yan and Gerstein 2011, Sutherland et al. 2011) if you provide a `BibTeX` file with references. You can also search for references on PubMed, DataCite or Crossref, cite by DOI, or read them from your Zotero library or a shared Zotero group (see https://rstudio.github.io/visual-markdown-editing/#/citations and https://rmarkdown.rstudio.com/authoring_bibliographies_and_citations.html for more information).

You can also specify the desired output format for your bibliography (see `csl` field in the YAML above). Many different bibliography styles (CSL files) can be obtained at https://zotero.org/styles or https://github.com/citation-style-language/styles.

# METHODS

## Study Area

We worked in a **beautiful** place with lots of trees, like *Quercus suber* and *Laurus nobilis*.

## Data collection and analysis

We applied a linear model where

$$y_i = \alpha + \beta * x_i$$

We used the statistical language `R` (R Core Team 2020) for all our analyses. These were implemented in dynamic rmarkdown documents using `knitr` (Xie 2014, 2015, 2021) and `rmarkdown` (Xie et al. 2018, 2020, Allaire et al. 2020) packages. All the multilevel models were

fitted with `lme4` ([Bates et al. 2015](#)).

## RESULTS

Trees in forest *A* grew taller than those in forest *B* (mean height: 25 versus 13 m).

And many more cool results that get updated dynamically, e.g. see Table [2](#) and Fig. [1](#). Note Tables and Figures are **cross-linked and numbered automatically**. They could also appear in the middle of the document, not necessarily at the end.

See also Fig. [S1](#) and Table [S1](#) in the Supplementary Material.

## DISCUSSION

Discuss.

## CONCLUSIONS

Wrap up

## ACKNOWLEDGEMENTS

On the shoulders of giants.

## REFERENCES

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Xie, Y., C. Dervieux, and E. Riederer. 2020. R markdown cookbook. Chapman; Hall/CRC, Boca Raton, Florida.

Yan, K.-K., and M. Gerstein. 2011. The spread of scientific information: Insights from the web usage statistics in PLoS article-level metrics. PLoS ONE 6:e19917.

# List of Tables

Table 1: A glimpse of the famous Iris dataset.

| Sepal.Length | Sepal.Width | Petal.Length | Petal.Width | Species |
|---:|---:|---:|---:|---|
| 5.1 | 3.5 | 1.4 | 0.2 | setosa |
| 4.9 | 3.0 | 1.4 | 0.2 | setosa |
| 4.7 | 3.2 | 1.3 | 0.2 | setosa |
| 4.6 | 3.1 | 1.5 | 0.2 | setosa |
| 5.0 | 3.6 | 1.4 | 0.2 | setosa |
| 5.4 | 3.9 | 1.7 | 0.4 | setosa |

Table 2: Now a subset of mtcars dataset.

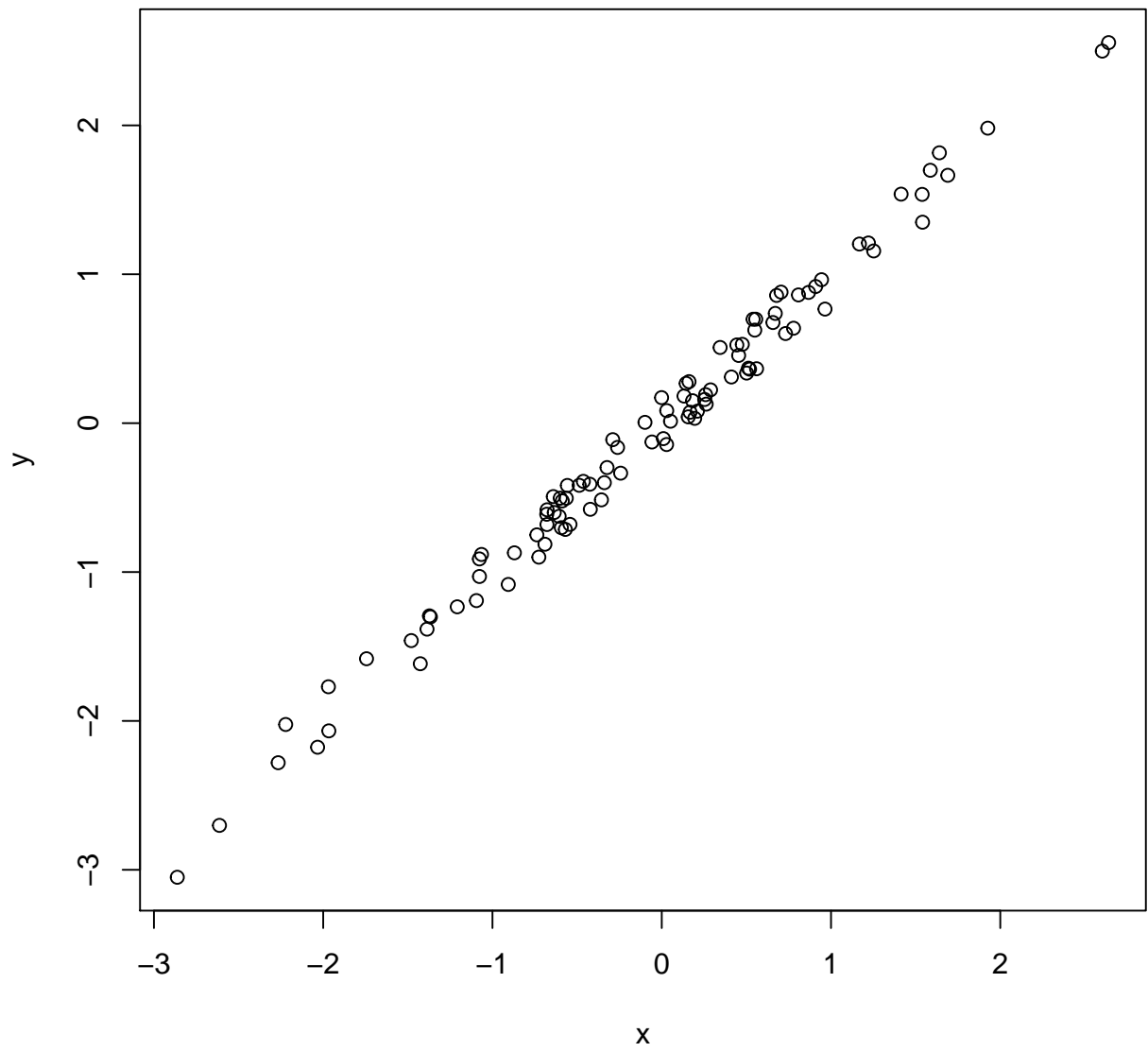|  | mpg | cyl | disp | hp | drat | wt | qsec | vs | am | gear | carb |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Merc 280 | 19.2 | 6 | 167.6 | 123 | 3.92 | 3.440 | 18.30 | 1 | 0 | 4 | 4 |
| Merc 280C | 17.8 | 6 | 167.6 | 123 | 3.92 | 3.440 | 18.90 | 1 | 0 | 4 | 4 |
| Merc 450SE | 16.4 | 8 | 275.8 | 180 | 3.07 | 4.070 | 17.40 | 0 | 0 | 3 | 3 |
| Merc 450SL | 17.3 | 8 | 275.8 | 180 | 3.07 | 3.730 | 17.60 | 0 | 0 | 3 | 3 |
| Merc 450SLC | 15.2 | 8 | 275.8 | 180 | 3.07 | 3.780 | 18.00 | 0 | 0 | 3 | 3 |
| Cadillac Fleetwood | 10.4 | 8 | 472.0 | 205 | 2.93 | 5.250 | 17.98 | 0 | 0 | 3 | 4 |
| Lincoln Continental | 10.4 | 8 | 460.0 | 215 | 3.00 | 5.424 | 17.82 | 0 | 0 | 3 | 4 |

# List of Figures

Figure 1: Just my first figure with a very fantastic caption.
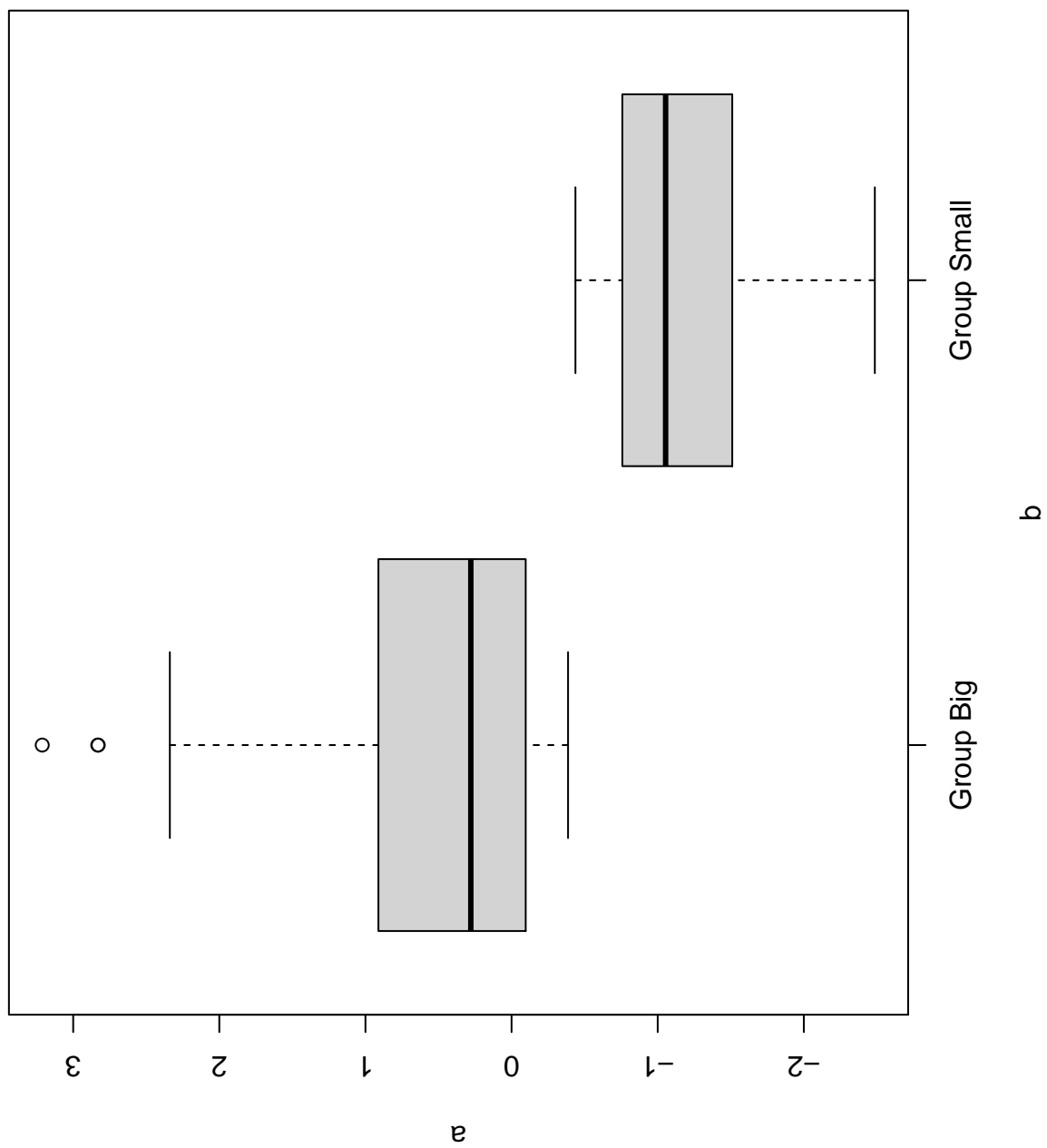
Figure 2: Second figure in landscape format.

# SUPPLEMENTARY MATERIAL

Table S1: A supplementary table.

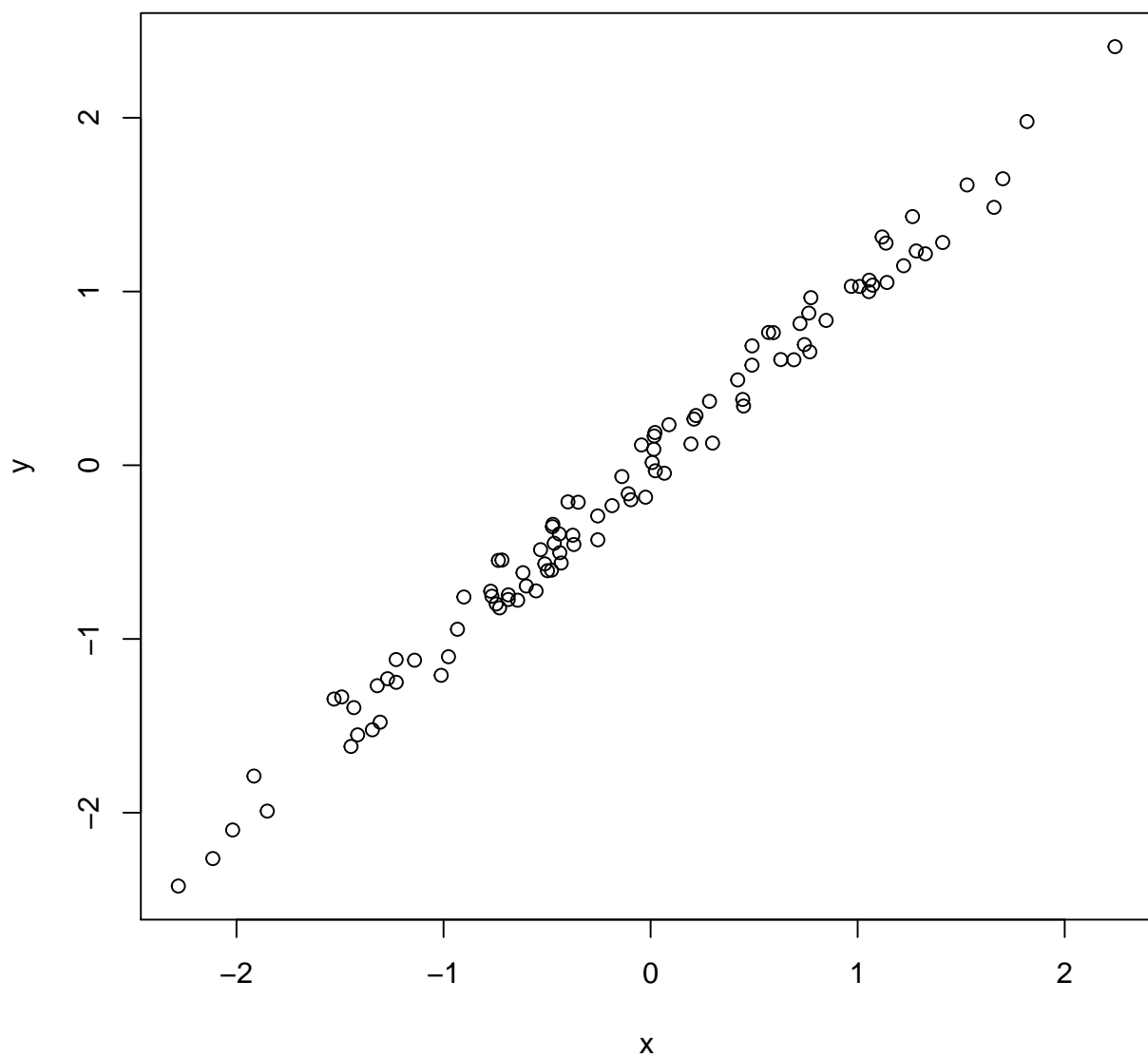| Sepal.Length | Sepal.Width | Petal.Length | Petal.Width | Species |
|---:|---:|---:|---:|---|
| 5.1 | 3.5 | 1.4 | 0.2 | setosa |
| 4.9 | 3.0 | 1.4 | 0.2 | setosa |
| 4.7 | 3.2 | 1.3 | 0.2 | setosa |
| 4.6 | 3.1 | 1.5 | 0.2 | setosa |
| 5.0 | 3.6 | 1.4 | 0.2 | setosa |
| 5.4 | 3.9 | 1.7 | 0.4 | setosa |

Figure S1: A Supplementary Figure.