



**Subject Areas:**

subject 1, subject 2, subject 3

**Keywords:**

one, two, optional, optional, optional

**Author for correspondence:**

B. Security

e-mail: [bob@email.com](mailto:bob@email.com)

## Template for preparing your research report submission to Royal Society Open Science using RMarkdown

Alice Anonymous<sup>1,2</sup>, Bob Security<sup>2</sup>

<sup>1</sup>Some Institute of Technology, Department, Street,  
City, State, Zip

<sup>2</sup>Another University Department, Street, City, State, Zip

The abstract text goes here. The abstract text goes here.  
The abstract text goes here. The abstract text goes here.  
The abstract text goes here. The abstract text goes here.  
The abstract text goes here. The abstract text goes here.

### 1. Insert A head here

This demo file is intended to serve as a “starter file”  
for articles submitted to the [Royal Society Open Science](#)  
journal using RMarkdown.

Place `\EndFirstPage` at the point where the plain  
text on the first page stops. Warning: excess text will be  
hidden behind the copyright box. The example below  
contains line 1 to 19 in the code. Lines 14 to 17 are hidden  
behind the copyright box.

#### (a) Insert B head here

Subsection text here.

##### (i) Insert C head here

Subsubsection text here.

Line 1  
Line 2  
Line 3  
Line 4  
Line 5  
Line 6  
Line 7  
Line 8  
Line 9  
Line 10  
Line 11  
Line 12  
Line 13

© 2014 The Authors. Published by the Royal Society under the terms of the  
Creative Commons Attribution License <http://creativecommons.org/licenses/by/4.0/>, which permits unrestricted use, provided the original author and  
source are credited.

Line 18  
Line 19

## 2. Lists

- one
- two
- three
- fruits
  - apples
    - \* macintosh
    - \* red delicious
  - pears
  - peaches
- vegetables
  - broccoli
  - chard

### (a) Citations

Blabla [1] blabla. Blabla [2] blabla. Blabla [1,3] blabla. Blabla [2,4–6] blabla.

#### (i) Headling level 3

Subsubsection text here.

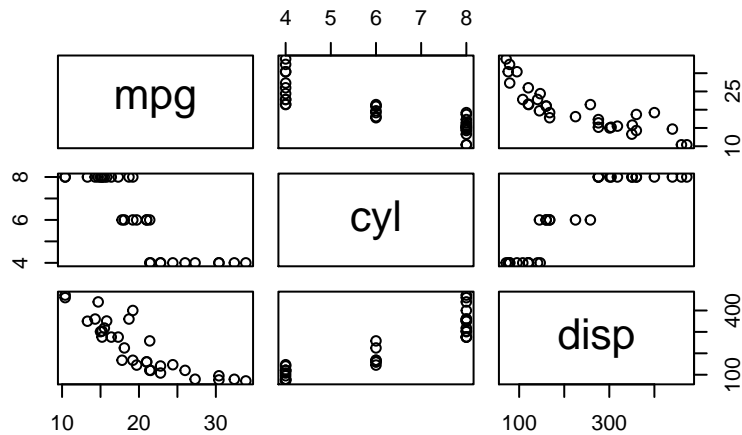
## 3. R code

R code can be added as usual. Note that syntax highlighting is not available. Fig. 1 is an example.

```
#23456789012345678901234567890123456789012345678901234567890123456789012345
#      10      20      30      40      50      60      70
summary(lm(mpg ~ disp, data = mtcars))

##
## Call:
## lm(formula = mpg ~ disp, data = mtcars)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -4.8922 -2.2022 -0.9631  1.6272  7.2305
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)  29.599855   1.229720   24.070 < 2e-16 ***
## disp        -0.041215   0.004712   -8.747 9.38e-10 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 3.251 on 30 degrees of freedom
## Multiple R-squared:  0.7183, Adjusted R-squared:  0.709
## F-statistic: 76.51 on 1 and 30 DF, p-value: 9.38e-10

##      mpg      cyl      disp      hp
##  Min.   :10.40   Min.    :4.000   Min.    : 71.1   Min.    : 52.0
```



**Figure 1.** The caption

```
## 1st Qu.:15.43 1st Qu.:4.000 1st Qu.:120.8 1st Qu.: 96.5
## Median :19.20 Median :6.000 Median :196.3 Median :123.0
## Mean :20.09 Mean :6.188 Mean :230.7 Mean :146.7
## 3rd Qu.:22.80 3rd Qu.:8.000 3rd Qu.:326.0 3rd Qu.:180.0
## Max. :33.90 Max. :8.000 Max. :472.0 Max. :335.0
## drat wt qsec vs
## Min. :2.760 Min. :1.513 Min. :14.50 Min. :0.0000
## 1st Qu.:3.080 1st Qu.:2.581 1st Qu.:16.89 1st Qu.:0.0000
## Median :3.695 Median :3.325 Median :17.71 Median :0.0000
## Mean :3.597 Mean :3.217 Mean :17.85 Mean :0.4375
## 3rd Qu.:3.920 3rd Qu.:3.610 3rd Qu.:18.90 3rd Qu.:1.0000
## Max. :4.930 Max. :5.424 Max. :22.90 Max. :1.0000
## am gear carb
## Min. :0.0000 Min. :3.000 Min. :1.000
## 1st Qu.:0.0000 1st Qu.:3.000 1st Qu.:2.000
## Median :0.0000 Median :4.000 Median :2.000
## Mean :0.4062 Mean :3.688 Mean :2.812
## 3rd Qu.:1.0000 3rd Qu.:4.000 3rd Qu.:4.000
## Max. :1.0000 Max. :5.000 Max. :8.000
```

Ethics. Please provide details on the ethics.

Data Accessibility. Please provide details on the data availability.

Authors' Contributions. Please provide details of author contributions here.

Competing Interests. Please declare any conflict of interest here.

Funding. Please provide details on funding

Disclaimer. Please provide disclaimer text here.

Acknowledgements. Please include your acknowledgments here, set in a single paragraph. Please do not include any acknowledgments in the Supporting Information, or anywhere else in the manuscript.

## References

1. Lannes D. 2013 *The Water Waves Problem: Mathematical Analysis and Asymptotics*. Mathematical Surveys and Monographs. Providence, RI: American Mathematical Society.
2. Hur VM, Johnson MA. 2015 Modulational instability in the Whitham equation for water waves. *Stud. Appl. Math.* **134**, 120–143.
3. Benjamin TB, Feir JE. 1967 The disintegration of wave trains on deep water. Part 1. Theory. *J. Fluid Mech.* **27**, 417–437.
4. Benjamin TB, Hasselmann K. 1967 Instability of Periodic Wavetrains in Nonlinear Dispersive Systems [and Discussion]. *Proc. R. Soc. Lond. Ser. A Math. Phys. Eng. Sci.* **299**, 59–76.
5. Hur VM, Johnson MA. 2015 Modulational instability in the Whitham equation with surface tension and vorticity. *Nonlinear Anal.* **129**, 104–118.
6. Hur VM, Pandey AK. 2016 Modulational instability in a shallow water model. *Preprint* p. 1608.04685.