Author for correspondence:
B. Security
e-mail: bob@email.com

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

Alice Anonymous[1,2], Bob Security[2]

[1]Some Institute of Technology, Department, Street, City, State, Zip

[2]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

Line 18
Line 19

THE ROYAL SOCIETY
PUBLISHING

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 a an example.

```
#234567890123456789012345678901234567890123456789012345678901234567890123456789012345
#        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
```
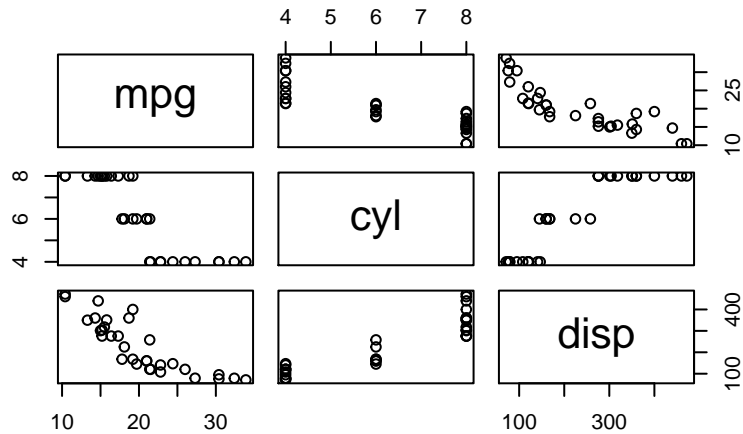
Figure 1. The caption

```
##   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
```

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.