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

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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

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.

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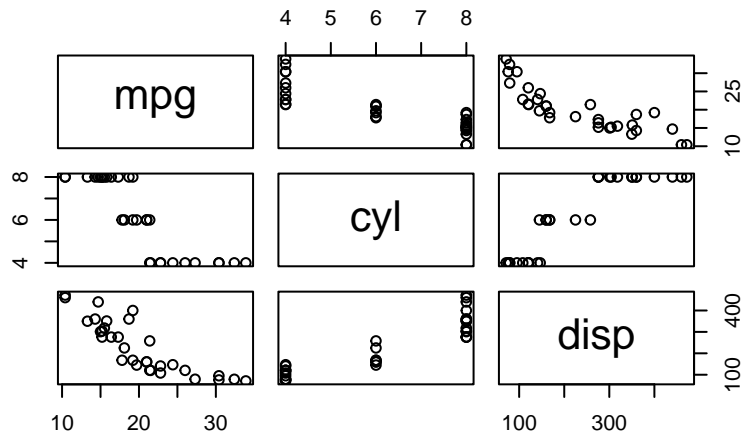
Figure 1. The caption

```
##   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
```

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.