A Super Cool Study - Take 2

Josephine Student

John J. Curtin

2024-03-13

Abstract

This study found some pretty cool results that have both high impact and important clinical implications. For example …

## Introduction

You can write your text using markdown.

* Top level section headings use ## because # is reserved for the manuscript title.
* APA (and other?) formats support ##, ###, and #### at least.

### Sub-heading - level 3

This is the ### level

#### Sub-heading - level 4

This is the #### level

##### Sub-heading - level 5

This is the ##### level

### Symbols and Equations

You can use quarto inline or display math equations as needed. Quarto provides [details](https://quarto.org/docs/authoring/markdown-basics.html#equations) on the use of these equations.

For example and are two variables. And here is an important formula:

### Citations & References

We can use cite relevant research in multiple formats. The two most common are:

* Knuth (1984) concluded something.
* These are the conclusions(Knuth 1984).

Article references are stored in a .bib file using betterbibtex (BBT) format. We create these references in Zotero collections.

Although we don’t do this regularly I think, if needed you can reference figures elsewhere using the @ symbol. Here is a reference to [Figure 1](#fig-1)

## Methods

This is the methods section.

## Results

Results include

* Markdown text
* Figures from data
* Figures from images (maybe included table images)
* Analysis output (i.e. statistics)

We demonstrate each (other than markdown text, which you should know!) below

### Data Figures

Figures are also generally created in separate notebooks and embedded into your manuscript.

|  |
| --- |
| Figure 1: A Basic Barplot Figure |

Source: [Figure 1](https://seschneck.github.io/newest_test/notebooks\fig1-preview.html#cell-fig-1)

### Figures from images

Images from figures can be included using the standard code to insert image files. These images should generally be saved in the image folder at the root of the study template by convention. The quarto website provides [additional details](https://quarto.org/docs/authoring/figures.html)

|  |
| --- |
| Figure 2: ARC Logo |

### Tables

We create tables using the kableExtra package. We are working on the optimal method to embed these from notebooks. It may be to save the tables as high res image files and then embed those images. Stay tuned.

Table 1. A table.

|  | Group 1 | | Group 2 | | Group 3 |
| --- | --- | --- | --- | --- | --- |
|  | mpg | cyl | disp | hp | drat |
| Mazda RX4 | 21.0 | 6 | 160.0 | 110 | 3.90 |
| Mazda RX4 Wag | 21.0 | 6 | 160.0 | 110 | 3.90 |
| Datsun 710 | 22.8 | 4 | 108.0 | 93 | 3.85 |
| Hornet 4 Drive | 21.4 | 6 | 258.0 | 110 | 3.08 |
| Hornet Sportabout | 18.7 | 8 | 360.0 | 175 | 3.15 |
| Valiant | 18.1 | 6 | 225.0 | 105 | 2.76 |
| Duster 360 | 14.3 | 8 | 360.0 | 245 | 3.21 |
| Merc 240D | 24.4 | 4 | 146.7 | 62 | 3.69 |
| Merc 230 | 22.8 | 4 | 140.8 | 95 | 3.92 |
| Merc 280 | 19.2 | 6 | 167.6 | 123 | 3.92 |

Source: [Tables](https://seschneck.github.io/newest_test/notebooks\tables-preview.html#cell-table-1)

Alternatively, this is an example of a simple table that is hard-coded using markdown table format. We don’t recommend this for tables built from data. Tables values should come directly from data so they don’t need to be typed in and will update if your data change. However, you may have other uses for simple tables where this method is helpful.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table 1: Recent historic eruptions on La Palma   | Name | Year | | --- | --- | | Current | 2021 | | Teneguía | 1971 | | Nambroque | 1949 | | El Charco | 1712 | | Volcán San Antonio | 1677 | | Volcán San Martin | 1646 | | Tajuya near El Paso | 1585 | | Montaña Quemada | 1492 | |

### Analysis Results

To add results that are not figures or tables, you will need to open the objects you saved from these analyses. See lm.qmd as an example. Generally you will open csv files that contain tidied results. For example

Source: [Article Notebook](https://seschneck.github.io/newest_test/index.qmd.html)

A significant effect of speed was observed ( = 3.9, t = 9.46, p = 0.000).

NOTES:

* We should write a function that works with tidied coeffs tables and takes the row, column, and number of decimal places to make this code simpler.
* This table doesnt contain df. Need to add that to table when saving in lm

## Discussion

## References

Knuth, Donald E. 1984. “Literate Programming.” *Comput. J.* 27 (2): 97–111. <https://doi.org/10.1093/comjnl/27.2.97>.