# Notes on DeclareDesign Implementation

Included here are some notes on installing and implementing DeclareDesign in R.

## Installation

Platform details: macOS Mojave 10.14.4 running R version 3.5.3 (2019-03-11).

* tried to install with install.packages("DeclareDesign", dependencies = TRUE, repos = c("http://R.declaredesign.org", "https://cloud.r-project.org")) and load; failure to load dependency package estimatr
  + error appears to be caused by a bad version of the estimatr package in those repos, although this has not be confirmed
  + solved by uninstalling and reinstalling that package
  + installing without indicating those repos should result in avoiding the error
* loading the library also loads several required packages

## Usage

I replicated the example on their help wiki to see how the code works. The code with some of my comments is shared in an R file - you can clone or fork to get your own copy and try this. Here is what I learned.

This is a helpful background on the idea of the setup: https://declaredesign.org/idea/. They also have the paper (prepublished) posted here: https://declaredesign.org/paper.pdf.

It looks like we need to specify the various components of the design according to our needs. This pappears to be fairly flexible, although I need a better understanding of how our data structure is to be confident I can do it correctly.

I got the code to run, and it produces comparable output to the examples provided by them. It is not obvious how to fit our 2x2x2 design in here, but I am sure it is a matter of better understanding how to tweak the code specifying the various components.

## Recommendations for our implementation

… Stopped here; will continue later.