# *Project Proposal*

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## Color Effects on Perceived Quality of Online Shopping Web Page

We propose to analyze the color online shopping dataset [1]. The dataset is suitable for a 3-factor experiment of online shopping. It contains three categorical factors: web page hue (1 = Blue, 2 = Red), Brightness (1 = Dark, 2 = Bright), and Price (1 = Low, 2 = high). Sample sizes are unbalanced.

The variable breakdown is shown below:

```
Variable names:
    quality  # Percieved quality
    trt_id   # ID
    hue      # Hue
    bright   # Brightness
    price    # Price
    X_hue    # Effect coding: Blue=1, Red=-1
    X_bright #                 Dark=1, Bright=-1
    X_price  #                 Low=1, High=-1
```

Among the listed variables, it is likely that variables `trt_id`, `X_hue`, `X_bright`, and `X_price` are not going to be used (might be dropped). Hence, we will only use the variables `quality` (as a response), `hue`, `bright`, and `price`. The analysis will follow the steps presented in Dr. Phil's "Math 328 Project Analysis and Report Checklist. [2]"

## References

[1] Y.-C. Hsieh, H.C. Chiu, Y.C. Tang, M. Lee (2018). "Do Colors Change Realities in Online Shopping," Journal of Interactive Marketing, Vol. 41, pp. 14 – 27, the dataset was taken from http://users.stat.ufl.edu/ winner/datasets.html.

[2] Philip Iversen, Math 328 Project Analysis and Report Checklist