

Title Page

The Introduction

This section should start with the research question and explain why it may be an important question for a restaurant-owner to have answer. The second paragraph should describe the variables of interest (which are the variable of interest?) and specify which is the dependent and which is the independent variable. In the third paragraph, explain your analysis plan.

The Variables

Feel free to use this as the name of this section. Here, you will provide summary statistics for the two variables, as well as the correlation coefficient between them. (Is the correlation strong or not?) Next, include an appropriate bivariate graphic.

The Analysis

This would also be an appropriate section title. In this section, do the analysis you planned in the introduction and explain your steps. Explicitly provide statistics (including p-values and/or test statistic values in parentheses). The statistics are only the support for your explanation of your analysis.

The Conclusion

The last prose section is the conclusion. In this, you provide the full statistical conclusion, the answer to the research question. That is the first paragraph. The second paragraph needs to reflect on the analysis you did and explain what you would like to do differently in the future. This could be to use a different variable, to include a second independent variable, or to question the representativeness of the data. All three of these should be considered in any analysis — *any* analysis.

Appendix: R Script

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##### Practicum Six
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### Preamble

source("http://rfs.kvasaheim.com/stat200.R")

dt = read.csv("lamplighterSales1903.csv")
summary(dt)

attach(dt)

### The analysis

mod = lm(varY~varX)
summary(mod)
predict(mod, newdata=data.frame(varX=102), interval="prediction")

### The graphics

# Nice-looking graphic for before
par(mar=c(4,4,1,1))
par(family="serif")
par(cex.lab=1.1, font.lab=2)

plot(varX,varY, pch=21, bg="#ff6600",
      xlab="Independent Variable",
      ylab="Dependent Variable")

abline(mod, col="red")
```