library(tidyverse)

library(gmodels)

library(pander)

#Import data

peppers <- read\_csv("Assignment\_2.csv")

#Tidy data

peppers\_tidy <- peppers %>%

mutate(condition = ifelse(condition == 1, "Control",

ifelse(condition == 2, "Intuitive", "Counterintuitive"))) %>%

mutate(highest = factor(highest),

lowest = factor(lowest),

second = factor(second))

#Chi-square for highest bar

pander(chisq.test(xtabs( ~ highest + condition, data = peppers\_tidy)))

#Chi-square for lowest bar

pander(chisq.test(xtabs( ~ lowest + condition, data = peppers\_tidy)))

#Chi-square for second lowest bar

pander(chisq.test(xtabs( ~ second + condition, data = peppers\_tidy)))

#Tidy for Fig 4 and produce chi-square test

question\_accuracy <- peppers\_tidy %>%

gather(highest, lowest, second, key = "Question", value = "Accuracy") %>%

mutate(Accuracy = factor(Accuracy))

pander(chisq.test(xtabs( ~ Accuracy + Question, data = question\_accuracy)))

#Tidy for Fig 5 and produce binomial logistic regression

graph\_heights <- peppers\_tidy %>%

gather(highest, lowest, second, key = "Question", value = "Accuracy") %>%

mutate(Accuracy = factor(Accuracy))

pander(summary(glm(Accuracy ~ Question, family = binomial(link = 'logit'), data = graph\_heights)))