bf\_project\_2.R

hirsc

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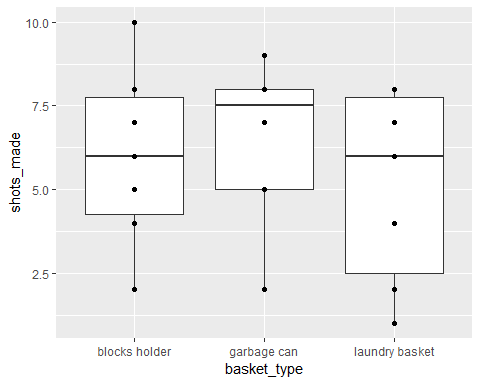
dat <- read\_csv("basketball.csv")

## Parsed with column specification:  
## cols(  
## basket\_type = col\_character(),  
## location\_feet = col\_integer(),  
## shots\_made = col\_integer()  
## )

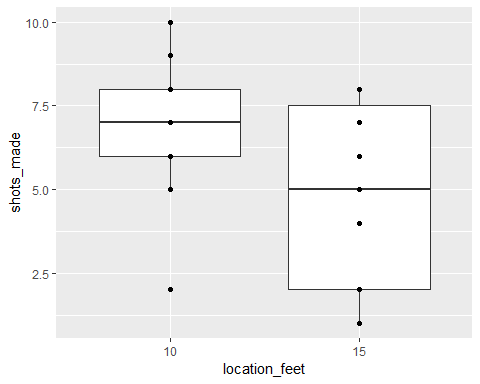
dat$basket\_type <- as.factor(dat$basket\_type)  
dat$location\_feet <- as.factor(dat$location\_feet)  
favstats(shots\_made~location\_feet+basket\_type, data = dat)

## location\_feet.basket\_type min Q1 median Q3 max mean sd n missing  
## 1 10.blocks holder 6 7 8 8 10 7.8 1.483240 5 0  
## 2 15.blocks holder 2 2 4 5 6 3.8 1.788854 5 0  
## 3 10.garbage can 5 5 7 9 9 7.0 2.000000 5 0  
## 4 15.garbage can 2 5 8 8 8 6.2 2.683282 5 0  
## 5 10.laundry basket 2 6 6 8 8 6.0 2.449490 5 0  
## 6 15.laundry basket 1 2 4 7 8 4.4 3.049590 5 0

dat %>%   
 ggplot(aes(x = basket\_type, y = shots\_made))+  
 geom\_boxplot()+  
 geom\_point()



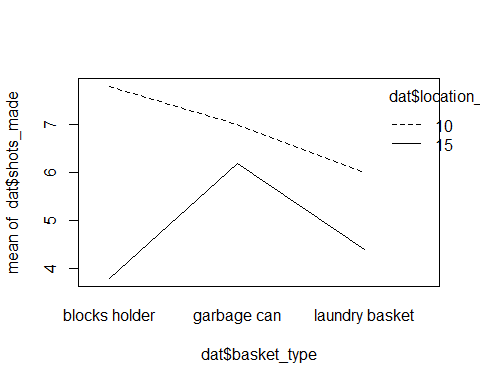
dat %>%   
 ggplot(aes(x = location\_feet, y = shots\_made))+  
 geom\_boxplot()+  
 geom\_point()



my\_aov <- aov(shots\_made~basket\_type\*location\_feet, data = dat)  
anova(my\_aov)

## Analysis of Variance Table  
##   
## Response: shots\_made  
## Df Sum Sq Mean Sq F value Pr(>F)   
## basket\_type 2 9.867 4.933 0.9279 0.40911   
## location\_feet 1 34.133 34.133 6.4201 0.01823 \*  
## basket\_type:location\_feet 2 13.867 6.933 1.3041 0.28997   
## Residuals 24 127.600 5.317   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

interaction.plot(dat$basket\_type, dat$location\_feet, dat$shots\_made)



interaction.plot(dat$location\_feet,dat$basket\_type, dat$shots\_made)

