Clase-4.R

USUARIO

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# Clase 4

# Experimento ganancia de peso (GP) basado en diferentes tipos de dietas
# Niveles de factor: 4(die1, die2, die3, die4)

die1 <- c(2.4, 2.2, 3.4, 1.6)
die2 <- c(2.2, 1.9, 1.7, 2.1)
die3 <- c(3.3, 1.3, 2.8, 2.1)
die4 <- c(1.6, 2.5, 1.4, 2.4)

# Sumatoria de grupos/bloques
# Para peso bajo sumar la ganacia de peso

sum(die1[1]+die2[1]+die3[1]+die4[1])

## [1] 9.5

sum(die1[2]+die2[2]+die3[2]+die4[2])

## [1] 7.9

sum(die1[3]+die2[3]+die3[3]+die4[3])

## [1] 9.3

sum(die1[4]+die2[4]+die3[4]+die4[4])

## [1] 8.2

# Sumatoria de llas dietas independiente de grupo/bloque
sum(die1); sum(die2); sum(die3); sum(die4)

## [1] 9.6

## [1] 7.9

## [1] 9.5

## [1] 7.9

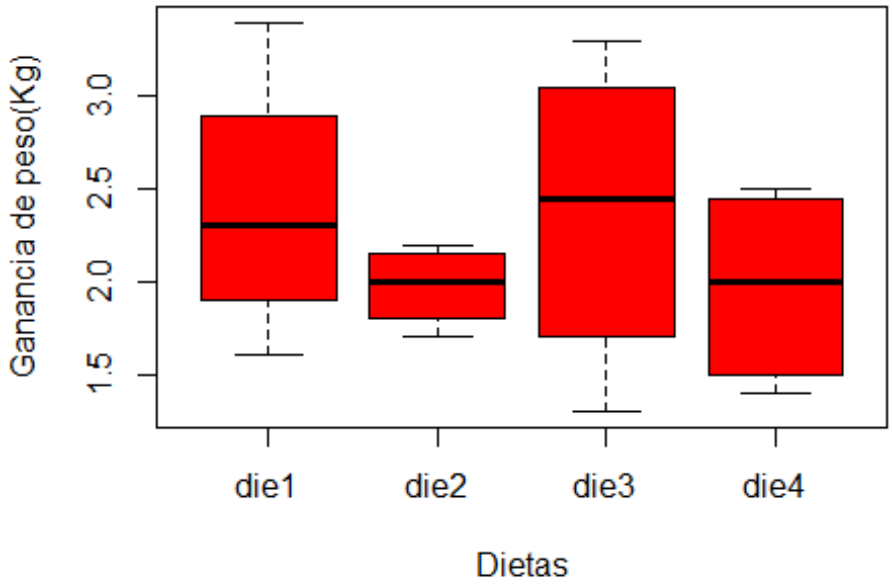
GP <- c(die1, die2, die3, die4 )
```

```r
Trat <- gl(4, 4, 16, labels = c("die1", "die2", "die3", "die4"))
Bloq <- gl(4, 4, 16, label = c("bajo", "normal", "sp", "ob"))

Dietas <- data.frame(Trat, Bloq, GP)
head(Dietas)
```

```
##   Trat   Bloq  GP
## 1 die1   bajo 2.4
## 2 die1   bajo 2.2
## 3 die1   bajo 3.4
## 4 die1   bajo 1.6
## 5 die2 normal 2.2
## 6 die2 normal 1.9
```

```r
boxplot(Dietas$GP ~ Dietas$Trat,
        col = "red",
        xlab = "Dietas",
        ylab = "Ganancia de peso(Kg)")
```




```r
tapply(Dietas$GP, Dietas$Trat, var)
```

```
##       die1       die2       die3       die4
## 0.56000000 0.04916667 0.75583333 0.30916667
```

```r
fligner.test(Dietas$GP, Dietas$Trat)
```

```
##
##  Fligner-Killeen test of homogeneity of variances
```

```
##
## data:  Dietas$GP and Dietas$Trat
## Fligner-Killeen:med chi-squared = 4.6369, df = 3, p-value = 0.2004
```

```
bartlett.test(Dietas$GP, Dietas$Trat)
```

```
##
##  Bartlett test of homogeneity of variances
##
## data:  Dietas$GP and Dietas$Trat
## Bartlett's K-squared = 4.1152, df = 3, p-value = 0.2493
```

```
diet.aov <- aov(Dietas$GP ~ Dietas$Trat)
summary(diet.aov)
```

```
##             Df Sum Sq Mean Sq F value Pr(>F)
## Dietas$Trat  3  0.682  0.2273   0.543  0.662
## Residuals   12  5.022  0.4185
```

```
peso.aov <- aov(Dietas$GP ~ Dietas$Bloq)
summary(peso.aov)
```

```
##             Df Sum Sq Mean Sq F value Pr(>F)
## Dietas$Bloq  3  0.682  0.2273   0.543  0.662
## Residuals   12  5.022  0.4185
```

```
Di2.aov <- aov(Dietas$GP ~ Dietas$Trat + Dietas$Bloq)
summary(Di2.aov)
```

```
##             Df Sum Sq Mean Sq F value Pr(>F)
## Dietas$Trat  3  0.682  0.2273   0.543  0.662
## Residuals   12  5.022  0.4185
```