Experimento_Sofia.R

Lorena

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```
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## Experimento Sofi
ceec <- read.csv("Lentejas.csv", header = T)
ceec$Sustrato <- as.factor(ceec$Sustrato)
boxplot(ceec$Crecimiento~ceec$Sustrato,
        xlab = "sustrato",
        ylab = "crecimiento")
```
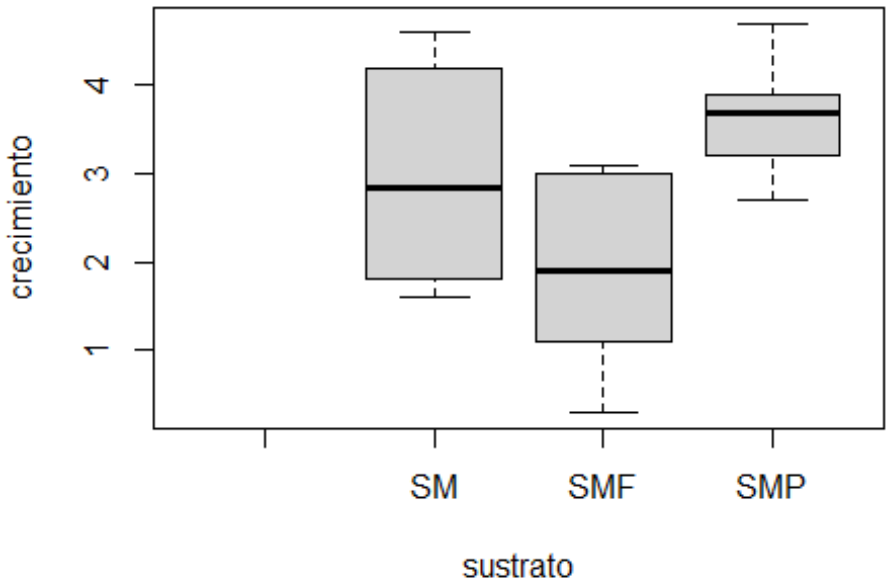




```
tapply(ceec$Crecimiento, ceec$Sustrato, mean)

##                 SM      SMF      SMP
##       NA 3.000000 1.888889 3.630000

tapply(ceec$Crecimiento, ceec$Sustrato, var)
```

```
##                  SM       SMF       SMP
##        NA 1.2933333 1.0336111 0.3067778
```

```
shapiro.test(ceec$Crecimiento)
```

```
##
##  Shapiro-Wilk normality test
##
## data:  ceec$Crecimiento
## W = 0.96599, p-value = 0.4567
```

```
bartlett.test(ceec$Crecimiento~ceec$Sustrato)
```

```
##
##  Bartlett test of homogeneity of variances
##
## data:  ceec$Crecimiento by ceec$Sustrato
## Bartlett's K-squared = 4.2718, df = 2, p-value = 0.1181
```

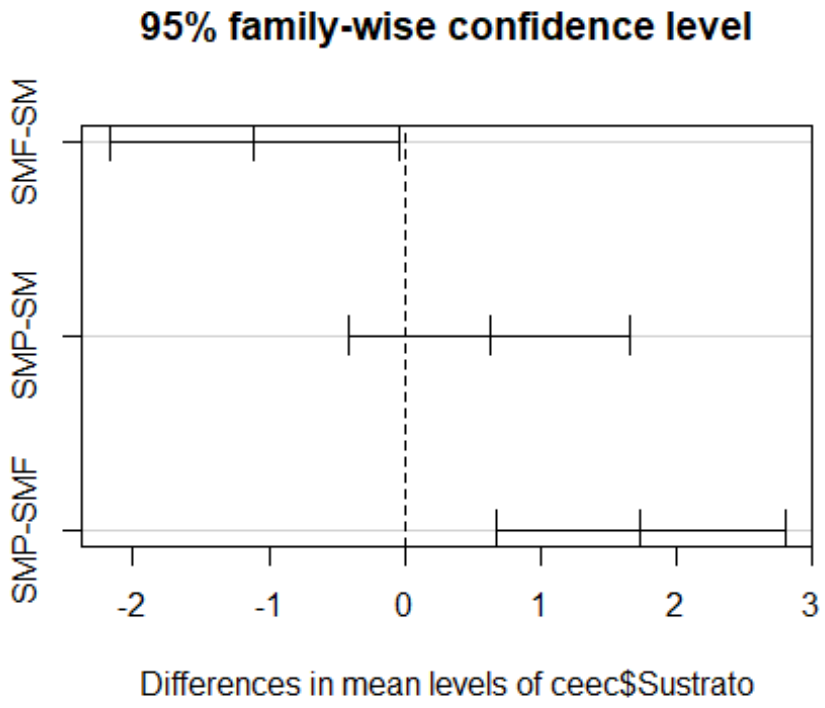
```
ceec.aov <- aov(ceec$Crecimiento~ceec$Sustrato)
summary(ceec.aov)
```

```
##               Df Sum Sq Mean Sq F value  Pr(>F)
## ceec$Sustrato  2  14.61   7.304   8.377 0.00156 **
## Residuals     26  22.67   0.872
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## 1 observation deleted due to missingness
```

```
TukeyHSD(ceec.aov)
```

```
##   Tukey multiple comparisons of means
##     95% family-wise confidence level
##
## Fit: aov(formula = ceec$Crecimiento ~ ceec$Sustrato)
##
## $`ceec$Sustrato`
##              diff        lwr         upr     p adj
## SMF-SM  -1.111111 -2.1772196 -0.04500262 0.0398547
## SMP-SM   0.630000 -0.4076738  1.66767381 0.3034133
## SMP-SMF  1.741111  0.6750026  2.80721960 0.0011319
```

```
plot(TukeyHSD(ceec.aov))
```




```
tapply(ceec$Crecimiento, ceec$Sustrato, length)
```

```
##       SM SMF SMP
##   1   10   9  10
```