

Inferencia Estadística

Apellidos:

Nombre:

6ª TG 5

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En un banco de datos se recogen las variables "media" (calificación promedio) y "TG" (grupo de tutorías grupales). Comenta la siguiente sesión efectuada en el entorno R:

```
> summary(media)
  Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
 1.000   3.667   5.000   5.176   6.333  10.000     6

> summary(TG)
TG1 TG2 TG3 TG4 TG5
 13  12  18  14  12

> round(do.call(rbind, by(media, TG, summary))), 1)
      Min. 1st Qu. Median Mean 3rd Qu. Max. NA's
TG1    1.2     4.1    4.8  4.7    5.3   7.8    1
TG2    2.0     3.2    4.3  4.3    4.8   8.3    2
TG3    1.3     4.0    6.3  5.9    7.3   9.7    1
TG4    2.3     3.0    5.7  5.7    7.3  10.0    1
TG5    1.0     3.8    4.3  4.6    5.8   7.7    1

> by(media, TG, shapiro.test)
TG: TG1, W = 0.94159, p-value = 0.5190
TG: TG2, W = 0.88854, p-value = 0.1633
TG: TG3, W = 0.97438, p-value = 0.8896
TG: TG4, W = 0.91071, p-value = 0.1875
TG: TG5, W = 0.95160, p-value = 0.6644

> bartlett.test(media, TG)
      Bartlett test of homogeneity of variances
Bartlett's K-squared = 3.547, df = 4, p-value = 0.4708

> summary(aov(media~TG))
      Df Sum Sq Mean Sq F value Pr(>F)
TG      4  26.12   6.530   1.39  0.249
Residuals 58 272.52   4.699
6 observations deleted due to missingness

> pairwise.t.test(media, TG, "none")
      Pairwise comparisons using t tests with pooled SD
      TG1    TG2    TG3    TG4
TG2 0.671 -      -      -
TG3 0.143 0.068 -      -
TG4 0.272 0.142 0.756 -
TG5 0.919 0.750 0.125 0.239
P value adjustment method: none
```