clase-3.R

Usuario

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```
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# Clase_ 3



Grupo <- gl(2, 12, labels = c("Fotografia", "Araña"))
Ansiedad <- c(30, 35, 45, 40, 50, 35, 55, 25, 30, 45, 40, 50, 40, 35, 50, 55,
              65, 55, 50, 35, 30, 50, 60, 39)
Datos <- data.frame(Grupo, Ansiedad)
head(Datos)
```

```
##        Grupo Ansiedad
## 1 Fotografia       30
## 2 Fotografia       35
## 3 Fotografia       45
## 4 Fotografia       40
## 5 Fotografia       50
## 6 Fotografia       35
```

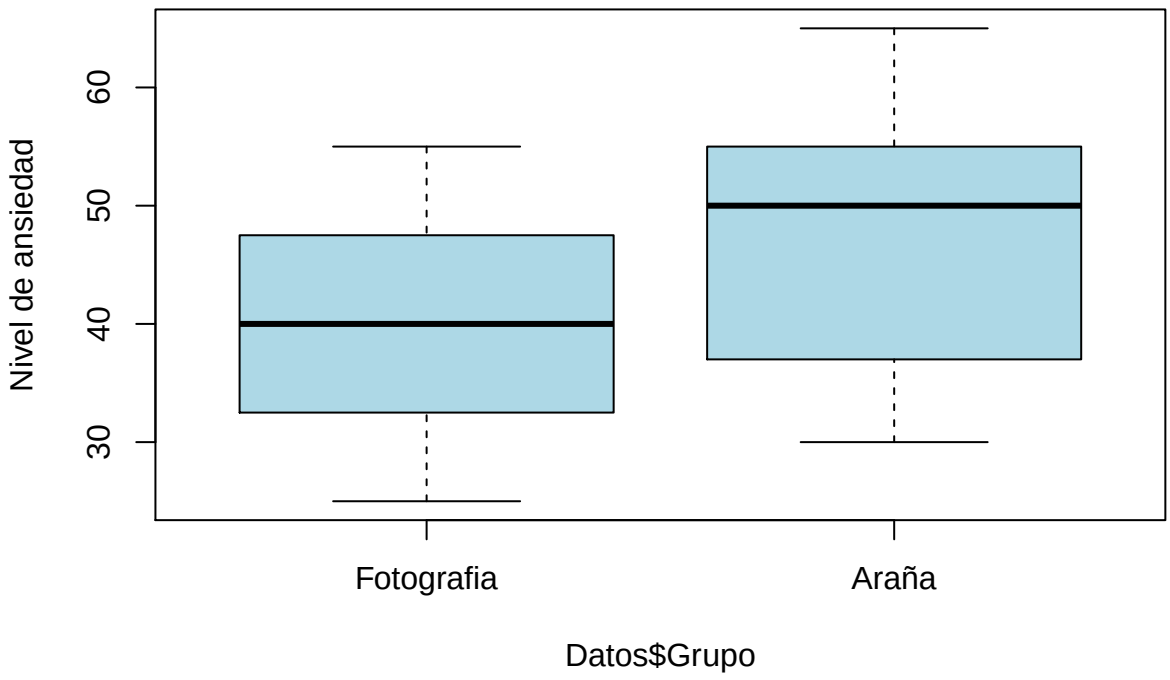
```
summary(Datos)
```

```
##         Grupo       Ansiedad
##  Fotografia:12   Min.   :25.0
##  Araña     :12   1st Qu.:35.0
##                  Median :42.5
##                  Mean   :43.5
##                  3rd Qu.:50.0
##                  Max.   :65.0
```

```
length(Ansiedad)
```

```
## [1] 24
```

```
boxplot(Datos$Ansiedad ~ Datos$Grupo, col= "lightblue", ylab="Nivel de ansiedad")
```




```
shapiro.test(Datos$Ansiedad)
```

```
##
##  Shapiro-Wilk normality test
##
## data:  Datos$Ansiedad
## W = 0.96282, p-value = 0.4977
```

```
bartlett.test(Datos$Ansiedad, Datos$Grupo)
```

```
##
##  Bartlett test of homogeneity of variances
##
## data:  Datos$Ansiedad and Datos$Grupo
## Bartlett's K-squared = 0.30702, df = 1, p-value = 0.5795
```

```
tapply(Datos$Ansiedad, Datos$Grupo, mean)
```

```
## Fotografia      Araña
##         40         47
```

```
library(pastecs)
by(Datos$Ansiedad, Datos$Grupo, stat.desc, basic= FALSE, norm =TRUE)
```

```
## Datos$Grupo: Fotografia
##       median         mean      SE.mean CI.mean.0.95          var
##   40.0000000   40.0000000    2.6827168    5.9046200   86.3636364
##      std.dev     coef.var     skewness     skew.2SE     kurtosis
##    9.2932038    0.2323301    0.0000000    0.0000000   -1.3939289
```

```
##     kurt.2SE   normtest.W   normtest.p
##   -0.5656047    0.9650165    0.8522870
## ------------------------------------------------------------
## Datos$Grupo: Araña
##        median          mean       SE.mean  CI.mean.0.95           var
##  50.000000000  47.000000000   3.183765638   7.007420922 121.636363636
##       std.dev      coef.var      skewness      skew.2SE      kurtosis
##  11.028887688   0.234657185  -0.005590699  -0.004386224  -1.459758279
##      kurt.2SE    normtest.W    normtest.p
##  -0.592315868   0.948872904   0.620569431
```

```
Grupo <- t.test(Datos$Ansiedad ~ Datos$Grupo, var.equal = TRUE)



# EJERCICIO 2 COSTALES ----------------------------------------------------

costal <- c(87.7, 80.01, 77.28, 78.76, 81.52, 74.2, 80.71, 79.5, 77.87, 81.94, 80.7,
            82.32, 75.78, 80.19, 83.91, 79.4, 77.52, 77.62, 81.4, 74.89, 82.95,
            73.59, 77.92, 77.18, 79.83, 81.23, 79.28, 78.44, 79.01, 80.47, 76.23,
            78.89, 77.14, 69.94, 78.54, 79.7, 82.45, 77.29, 75.52, 77.21, 75.99,
            81.94, 80.41, 77.7)

n <- length(costal)
mean(costal)
```

```
## [1] 78.91068
```

```
mean.costal <- mean(costal) #se hace asi para que se guarde en mean.costal el valor

sd(costal)
```

```
## [1] 3.056023
```

```
costal.sd <- sd(costal)

costa.se <- costal.sd/sqrt(n)
costal.T <- (mean.costal-80)/costa.se


t.test(costal, mu=80, alternative = "less")
```

```
##
##  One Sample t-test
##
## data:  costal
## t = -2.3644, df = 43, p-value = 0.01132
## alternative hypothesis: true mean is less than 80
## 95 percent confidence interval:
##      -Inf 79.68517
## sample estimates:
## mean of x
##  78.91068
```

```
pt(costal.T, df = n-1)
```

```
## [1] 0.01132175
```