RWorkSheet_Sabanal#3b

2023-10-11

```
#1a
Respo <- c(1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20)
Sex <- c(2,2,1,2,2,2,2,2,2,2,1,2,2,2,2,2,2,2,1,2)
FathersOccu <- c(1,3,3,3,1,2,3,1,1,1,3,2,1,3,3,1,3,1,2,1)
Person_At_Home <- c(5,7,3,8,5,9,6,7,8,4,7,5,4,7,8,8,3,11,7,6)
SiblingsatSchool <- c(6,4,4,1,2,1,5,3,1,2,3,2,5,5,2,1,2,5,3,2)
TypesofHouses <- c(1,2,3,1,1,3,3,1,2,3,2,3,2,2,3,3,3,3,3,2)

HouseholdData <- data.frame("Respondents" = Respo,
                            "Sex" = Sex,
                            "Fathers Occupation" = FathersOccu,
                            "Persons at Home" = Person_At_Home,
                            "Siblings at School" = SiblingsatSchool,
                            "Types of Houses" = TypesofHouses)
HouseholdData
```

```
##    Respondents Sex Fathers.Occupation Persons.at.Home Siblings.at.School
## 1            1   2                  1              5                   6
## 2            2   2                  3              7                   4
## 3            3   1                  3              3                   4
## 4            4   2                  3              8                   1
## 5            5   2                  1              5                   2
## 6            6   2                  2              9                   1
## 7            7   2                  3              6                   5
## 8            8   2                  1              7                   3
## 9            9   2                  1              8                   1
## 10          10   2                  1              4                   2
## 11          11   1                  3              7                   3
## 12          12   2                  2              5                   2
## 13          13   2                  1              4                   5
## 14          14   2                  3              7                   5
## 15          15   2                  3              8                   2
## 16          16   2                  1              8                   1
## 17          17   2                  3              3                   2
## 18          18   2                  1             11                   5
## 19          19   1                  2              7                   3
## 20          20   2                  1              6                   2
##    Types.of.Houses
## 1                1
## 2                2
## 3                3
## 4                1
## 5                1
## 6                3
## 7                3
```

```
## 8                1
## 9                2
## 10               3
## 11               2
## 12               3
## 13               2
## 14               2
## 15               3
## 16               3
## 17               3
## 18               3
## 19               3
## 20               2
```

```
#1b
#the data is about a Household occupants

summary(HouseholdData)
```

```
##   Respondents          Sex       Fathers.Occupation Persons.at.Home
##  Min.   : 1.00   Min.   :1.00   Min.   :1.00       Min.   : 3.0
##  1st Qu.: 5.75   1st Qu.:2.00   1st Qu.:1.00       1st Qu.: 5.0
##  Median :10.50   Median :2.00   Median :2.00       Median : 7.0
##  Mean   :10.50   Mean   :1.85   Mean   :1.95       Mean   : 6.4
##  3rd Qu.:15.25   3rd Qu.:2.00   3rd Qu.:3.00       3rd Qu.: 8.0
##  Max.   :20.00   Max.   :2.00   Max.   :3.00       Max.   :11.0
##  Siblings.at.School Types.of.Houses
##  Min.   :1.00       Min.   :1.0
##  1st Qu.:2.00       1st Qu.:2.0
##  Median :2.50       Median :2.5
##  Mean   :2.95       Mean   :2.3
##  3rd Qu.:4.25       3rd Qu.:3.0
##  Max.   :6.00       Max.   :3.0
```

```
#c

#no, its 2.95

#d

first_second <- HouseholdData[1:2,]
first_second
```

```
##   Respondents Sex Fathers.Occupation Persons.at.Home Siblings.at.School
## 1           1   2                  1               5                  6
## 2           2   2                  3               7                  4
##   Types.of.Houses
## 1               1
## 2               2
```

```
#e
third5and2nd4 <- HouseholdData[c(3,5),c(2,4)]
third5and2nd4
```

```
##   Sex Persons.at.Home
## 3   1               3
## 5   2               5
```

```r
#f
types_houses <- HouseholdData[,1]
types_houses
```

```
##  [1]  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20
```

```r
#g

MaleFatherOccu <- HouseholdData[HouseholdData$Sex == 1 & HouseholdData$Fathers.Occupation == 1, c(2,3)]
MaleFatherOccu
```

```
## [1] Sex                Fathers.Occupation
## <0 rows> (or 0-length row.names)
```

```r
#h

FemaleSiblings <- HouseholdData[HouseholdData$Sex == 2 & HouseholdData$Siblings.at.School >= 5, c(2,5) ]
FemaleSiblings
```

```
##    Sex Siblings.at.School
## 1    2                  6
## 7    2                  5
## 13   2                  5
## 14   2                  5
## 18   2                  5
```

```r
#2


Num2 = data.frame(Ints=integer(),
                  Doubles=double(),
                  Characters=character(),
                  Logicals=logical(),
                  Factors=factor(),
                  stringsAsFactors=FALSE)

print("Structure of the empty dataframe:")
```

```
## [1] "Structure of the empty dataframe:"
```

```r
print(str(Num2))
```

```
## 'data.frame':    0 obs. of  5 variables:
##  $ Ints      : int
##  $ Doubles   : num
##  $ Characters: chr
##  $ Logicals  : logi
##  $ Factors   : Factor w/ 0 levels:
## NULL
```

```r
#it prints the structure of the dataframe


#3

Respondents2 <- c(1,2,3,4,5,6,7,8,9,10)
Sex2 <- c("Male", "Female", "Female", "Male", "Male", "Female", "Female", "Male","Female", "Male")
FathersOcc2 <- c(1,2,3,3,1,2,2,3,1,3)
```

```r
PersonatHome2<- c(5,7,3,8,6,4,4,2,11,6)
SiblingsatSch2 <- c(2,3,0,5,2,3,1,2,6,2)
TypeofHouses2 <- c("Wood", "Congrete", "Congrete", "Wood", "Semi-congrete", "Semi-congrete", "Wood", "S

HouseholdData2 <- data.frame("Respondetns" = Respondents2,
                             "Sex" = Sex2,
                             "Fathers Occupation" = FathersOcc2,
                             "Person at Home" = PersonatHome2,
                             "Siblings at Schoo" = SiblingsatSch2,
                             "Type of Houses" = TypeofHouses2)
HouseholdData2
```

```
##    Respondetns    Sex Fathers.Occupation Person.at.Home Siblings.at.Schoo
## 1            1   Male                 1             5                 2
## 2            2 Female                 2             7                 3
## 3            3 Female                 3             3                 0
## 4            4   Male                 3             8                 5
## 5            5   Male                 1             6                 2
## 6            6 Female                 2             4                 3
## 7            7 Female                 2             4                 1
## 8            8   Male                 3             2                 2
## 9            9 Female                 1            11                 6
## 10          10   Male                 3             6                 2
##    Type.of.Houses
## 1            Wood
## 2        Congrete
## 3        Congrete
## 4            Wood
## 5   Semi-congrete
## 6   Semi-congrete
## 7            Wood
## 8   Semi-congrete
## 9   Semi-congrete
## 10       Congrete
```

```r
write.csv(HouseholdData2, file = "HouseholdData.csv")


#3a

csvHouseholdData <- read.csv(file = "HouseholdData.csv")
csvHouseholdData
```

```
##     X Respondetns    Sex Fathers.Occupation Person.at.Home Siblings.at.Schoo
## 1   1           1   Male                 1             5                 2
## 2   2           2 Female                 2             7                 3
## 3   3           3 Female                 3             3                 0
## 4   4           4   Male                 3             8                 5
## 5   5           5   Male                 1             6                 2
## 6   6           6 Female                 2             4                 3
## 7   7           7 Female                 2             4                 1
## 8   8           8   Male                 3             2                 2
## 9   9           9 Female                 1            11                 6
## 10 10          10   Male                 3             6                 2
##    Type.of.Houses
```

```
## 1            Wood
## 2        Congrete
## 3        Congrete
## 4            Wood
## 5   Semi-congrete
## 6   Semi-congrete
## 7            Wood
## 8   Semi-congrete
## 9   Semi-congrete
## 10       Congrete
```

```
#3b


csvHouseholdDataSex <- as.integer(factor(csvHouseholdData$Sex, levels = c("Male", "Female")))
csvHouseholdDataSex
```

```
##  [1] 1 2 2 1 1 2 2 1 2 1
```

```
#3c


csvHouseholdDataTypeofHouses <- as.integer(factor(csvHouseholdData$Type.of.Houses, levels = c("Wood", "C

csvHouseholdDataTypeofHouses
```

```
##  [1] 1 2 2 1 3 3 1 3 3 2
```

```
#3d
#its already on int type
csvHouseholdData$Fathers.Occupation
```

```
##  [1] 1 2 3 3 1 2 2 3 1 3
```

```
csvHouseholdDataFathersOcc <- as.integer(factor(csvHouseholdData$Fathers.Occupation, levels = c("")))
csvHouseholdDataFathersOcc
```

```
##  [1] NA NA NA NA NA NA NA NA NA NA
```

```
#3e

csvHouseholdDataFemaleFatherOcc <- csvHouseholdData[csvHouseholdData$Sex == "Female" & csvHouseholdData$
csvHouseholdDataFemaleFatherOcc
```

```
##      Sex Fathers.Occupation
## 2 Female                 2
## 6 Female                 2
## 7 Female                 2
```

```
#3f

csvHouseholdDataSibmorethan5 <- csvHouseholdData[csvHouseholdData$Siblings.at.Schoo >= 5 , c(2,6)]
csvHouseholdDataSibmorethan5
```

```
##   Respondetns Siblings.at.Schoo
## 4           4                 5
## 9           9                 6
```

```
#4
# The majority of the other sentiments on this day, July 14, are negative. This indicates that some sub
```

```
# Even though all attitudes increased on this day, July 15, the negative sentiment is still at its grea

# On these days, negative attitudes are still prevalent on July 17 and July 18, but neutral and positiv

# On July 20, all sentiments reached their lowest points, although there were still more negative feeli

# All emotions are higher on this day, July 21, with the negative still dominating. This could imply th

#This information can lead us to the conclusion that public opinion is subject to outside influences an
```