

RWorkSheet_Calopez#3b

2023-10-11

#1a

```
dfRespo <- c(1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20)
dfSex <- c(2,2,1,2,2,2,2,2,2,2,1,2,2,2,2,2,2,1,2)
dfFathersOccu <- c(1,3,3,3,1,2,3,1,1,1,3,2,1,3,3,1,3,1,2,1)
dfPerson_At_Home <- c(5,7,3,8,5,9,6,7,8,4,7,5,4,7,8,8,3,11,7,6)
dfSiblingsatSchool <- c(6,4,4,1,2,1,5,3,1,2,3,2,5,5,2,1,2,5,3,2)
dfTypesofHouses <- c(1,2,3,1,1,3,3,1,2,3,2,3,2,2,3,3,3,3,3,2)

dfHouseholdData <- data.frame("Respondents" = dfRespo,
                              "Sex" = dfSex,
                              "Fathers Occupation" = dfFathersOccu,
                              "Persons at Home" = dfPerson_At_Home,
                              "Siblings at School" = dfSiblingsatSchool,
                              "Types of Houses" = dfTypesofHouses)

dfHouseholdData
```

##	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(dfHouseholdData)
```

```
## 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 <- dfHouseholdData[1:2,]
```

```
#first_second
```

```
first_second <- head(dfHouseholdData, 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 <- dfHouseholdData[c(3,5),c(2,4)]
```

```
third5and2nd4
```

```

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

#f
types_houses <- dfHouseholdData$Types.of.Houses
types_houses

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

#g

dfMaleFatherOccu <- dfHouseholdData[dfHouseholdData$Sex == 1 & dfHouseholdData$Fathers.Occupation == 1,
dfMaleFatherOccu

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

#h

dfFemaleSiblings <- dfHouseholdData[dfHouseholdData$Sex == 2 & dfHouseholdData$Siblings.at.School >= 5,
dfFemaleSiblings

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

#2

dfofNum2 = 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:"
print(str(dfofNum2))

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

#it prints the structure of the dataframe

#3. Create a .csv file of this. Save it as HouseholdData.csv

newRespondent <- c(1:10)

```

```

newSex <- c("Male", "Female", "Female", "Male", "Male", "Female", "Female", "Male", "Female", "Male")
newFathersOccupation <- c(1,2,3,3,1,2,2,3,1,3)
newPersonsAtHome <- c(5,7,3,8,6,4,4,2,11,6)
newSiblingsAtSchool <- c(2,3,0,5,2,3,1,2,6,2)
newTypesHouses <- c("Wood", "Congrete", "Congrete", "Wood", "Semi-concrete", "Semi-concrete", "Wood", "Semi-concrete", "Wood", "Semi-concrete")

HouseholdData <- data.frame(
  Respondents = newRespondent,
  Sex = newSex,
  FatherOccupation = newFathersOccupation,
  PersonsAtHome=newPersonsAtHome,
  SiblingsAtSchool=newSiblingsAtSchool,
  TypesOfHouses=newTypesHouses)
HouseholdData

```

```

##      Respondents      Sex FatherOccupation PersonsAtHome SiblingsAtSchool
## 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

```

```

##      TypesOfHouses
## 1             Wood
## 2           Congrete
## 3           Congrete
## 4             Wood
## 5 Semi-concrete
## 6 Semi-concrete
## 7             Wood
## 8 Semi-concrete
## 9 Semi-concrete
## 10           Congrete

```

```

write.csv(HouseholdData, file = "HouseholdData.csv")

```

#a.Import the csv file into the R environment. Write the codes.

```

imported <- read.csv("HouseholdData.csv")
imported

```

```

##      X Respondents      Sex FatherOccupation PersonsAtHome SiblingsAtSchool
## 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
##   TypesOfHouses
## 1      Wood
## 2      Congrete
## 3      Congrete
## 4      Wood
## 5 Semi-concrete
## 6 Semi-concrete
## 7      Wood
## 8 Semi-concrete
## 9 Semi-concrete
## 10     Congrete
```

#b. Convert the Sex into factor using factor() function and change it into integer. [Legend: Male = 1 and Female = 2]

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

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

c. Convert the Type of Houses into factor and change it into integer. [Legend: Wood = 1; Congrete = 2 and Semi-concrete = 3]

```
imported$HouseType <- factor(imported$TypesOfHouses, levels = c("Wood", "Congrete", "Semi-concrete"))
imported$HouseType <- as.integer(imported$HouseType)
imported$HouseType
```

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

#d. On father's occupation, factor it as Farmer = 1; Driver = 2; and Others = 3. What is the R code and output?

```
imported$FatherOccupation <- factor(imported$FatherOccupation, levels = c(1,2,3), labels = c("Farmer", "Driver", "Others"))
imported$FatherOccupation
```

```
## [1] Farmer Driver Others Others Farmer Driver Driver Others Farmer Others
## Levels: Farmer Driver Others
```

e. Select only all females respondent that has a father whose occupation is driver. Write the codes and output.

```
femaleDriver <- imported[imported$Sex == 2 & imported$FatherOccupation == "Driver",]
femaleDriver
```

```
##   X Respondents Sex FatherOccupation PersonsAtHome SiblingsAtSchool
## 2 2           2   2           Driver             7                 3
## 6 6           6   2           Driver             4                 3
## 7 7           7   2           Driver             4                 1
##   TypesOfHouses HouseType
## 2      Congrete         2
## 6 Semi-concrete         3
## 7      Wood           1
```

f. Select the respondents that have greater than or equal to 5 number of siblings attending school. Write the codes and output.

```
upper_five <- imported[imported$SiblingsAtSchool >= 5,]
upper_five
```

```
##   X Respondents Sex FatherOccupation PersonsAtHome SiblingsAtSchool
## 4 4           4   1           Others             8                 5
## 9 9           9   2           Farmer            11                 6
```

```
## TypesOfHouses HouseType
## 4 Wood 1
## 9 Semi-concrete 3
```

#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 great

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